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I.

AMERICA'S ACHIEVEMENTS IN THE REALM OF
EXACT SCIENCE.

R. C. SCHIEDT.

For more than four hundred years the American people have been busily engaged in the conquest of a continent. Their task is by no means completed. The resources of this great continent are vast and varied and their development presents a wide range of industrial problems the solution of which have had, as they should, no small influence upon the character and the trend of our educational institutions and the ingenuity of the individual citizen. To meet the demand for trained men in the industries strong schools have sprung up in most of our great centers of population and the states themselves have recognized their obligation and their opportunity by establishing technical schools in connection with their state colleges and universities. In turn these schools have had their reflex influence upon the old-time classical ideals, the Greek and Latin requirements have been greatly, and to my mind unwisely, reduced, while those for the natural sciences have been correspondingly expanded, until there is now offered sufficient work in our oldest institutions to require the entire time of a student for a

dozen years to complete it. In brief, the scientific spirit is abroad everywhere, infusing new life even into the dry bones of the old humanities. But this new movement is not primarily of American origin. When in 1824 a physiological laboratory was established in the university of Breslau and in the following year Liebig opened at Giessen his chemical laboratory fully equipped for the use of students and investigators, there was introduced into education as into life in general a new and very important influence. Stimulated by these centers of scientific activity and by the laboratories of Berzelius in Sweden and Gay-Lussac in Paris the necessity of laboratory instruction spread with great rapidity to the sciences in general and introduced into all fields of human thought an entirely new method of attacking problems of investigation. Previous to the nineteenth century the great inventions were brought about not so much as a result of any special scientific training as by mere accident or the practical requirements of the age; necessity is the mother of invention and America had its lion share in such inventions, as the steam engine and the cotton-gin amply testify. Latterly the tables have been turned and scientific discoveries have produced new practical needs and created spheres of labor, industry and commerce, and here also America has made gigantic strides so that one needs no special prophetic gift to predict that in fifty years the United States will, as regards good arrangement, ease of use and wealth of what is offered, equal, if not surpass, the best of any other country.

In view of such historic development the question of difference between the old and the new may be raised. The answer lies in the difference between science and discovery. The latter may be defined as the enrichment of our knowledge through concrete facts and the former as the methodical application and transformation of the discovered fact to and into systematic, purposeful knowledge. Europe is still ahead of us both in the making of great scientific discoveries and in the formation of those theories which have opened up wholly new domains of knowledge. To Europe belongs the credit of discovering a surprising large number of new chemical elements, of spectral

analysis and with it of astrophysics, of the great discoveries in the chemistry of dyes and sugars, of the physical chemistry of solutions, of the liquefaction and condensation of gases, especially of liquid air, of the Röntgen and Becquerel rays, of radium and its rays, of color photography, of the dynamo-machine, of electric light, indeed, of most of the investigations and applications of electricity—Thomas Edison notwithstanding—as a source of power, of the electric furnace and its fruitful application. In the field of biology Europe has given us almost all the doctrines of the protozoa and bacteria with their explanation of epidemics, the toxins and antitoxins, the working out of the doctrine of immunity, the discovery of the finer processes of fertilization and of karyokinesis, the doctrine of descent and Darwinism, and above all, crowning all, the conception and foundation of the great idea of the conservation of energy. However, there is still a vast amount of work to be done, much of which will be done on this side of the Atlantic; America's scientific capital is equal to Europe's; besides she is well in the way of preceding Europe in the nurture of the sciences. She has already produced men and performances of the first rank in considerable numbers; over night there will be more of them. Let us *briefly glance at America's share in exact scientific achievement.*

The most fruitful discoveries and inventions as far as their practical application and far-reaching influence is concerned must be credited to American men. The cotton-gin, the telegraph, the steamship, the telephone and the aeroplane have certainly contributed the lion-share to modern civilization. None of the intellectual giants who gave us these great blessed agencies of human uplift came to their task dogmatically prepared, they are not exact scientific achievements in the strict sense of the word, because their underlying scientific principles had been laid down by other men, not Americans. But they applied the principles and turned scientific theories into achievements. Eli Whitney was a manufacturer, Moore and Fulton were portrait painters; Bell, a Scotchman by birth, was a professor of vocal physiology in Boston University, and the Wright brothers

were practical aeronauts. So was Benjamin Franklin a printer by trade, but by accurate scientific experiments, long before laboratories were established, he discovered and demonstrated that lightning is a discharge of electricity, for which discovery he was awarded the Copley medal by the Royal Society in 1750. In its daring and far-reaching influence it foreshadowed the marvellous practical inventions, notably that of the phonograph, of that other great American whose name and fame stands today for all that is wonderful and miraculous in the scintillating world of practical electricity. All these men believed in the untrammeled freedom of the realm of experimental possibilities and they all achieved wonders. This daring amateurism is a distinctive American trait, evolved out of the desire of generations of men to conquer a new continent. It permeates all our institutions and enterprises, it overwhelms the patent office with innumerable applications for new devices, it swamps the political arena with surprises as well as with disasters. We believe in government by amateurs and of amateurs and we make some surprising discoveries through sheer ignorance of the task. All discoveries presuppose a childlike naïveté, and abandonment to native intuition. So it happens that the most fruitful observers are not the most learned men. Faraday was a journeyman bookbinder, his scant scientific knowledge came from chance readings of the encyclopedias, which he was binding and yet he laid the foundations upon which almost our entire electro-technique is built. Such observers and inventors America has galore. But it is not my purpose to discuss America's scientific achievements from that point of view. When the janitor of Galvani's laboratory saw the twitching of a frog's muscle he had discovered a fact, but Galvani himself, when informed of the fact, saw by virtue of his scientifically trained mind, a hundred possible new facts arising out of this chance discovery, and immediately began to experiment. Aristotle already said: "First collect facts, then combine them by logical reasoning"; the first is discovery, the second exact science, frequently wrongly called theoretical sci-

ence. The two belong together but progress on the larger scale essentially depends upon the scientific method.

The era of science in this sense begins for America with the arrival in 1846 of Louis Agassiz, born in Switzerland and trained in Germany. At twenty-three Agassiz was already well known in Europe, an author and naturalist of national reputation. He was the protégé of the king of Bavaria and of Alexander von Humboldt, was enthusiastically received in England by such men as Lyell and Murchison and was finally invited to deliver a course of lectures in Boston. He made so strong an impression upon the people of the Republic that they determined to keep him. American ideas appealed to him. He was lionized and in constant demand, but avoided publicity and declined invitations when he could, giving as his reason that he was in the employ of the king of Prussia who had given him fifteen thousand francs for investigation. In 1848 this monarch released him from his services and Agassiz accepted the chair of the Amos Lawrence Scientific School at Cambridge. Thus at the age of forty he became professor at Harvard University and joined the charmed intellectual circle made up of Longfellow, Pierce, Fulton, Asa Gray, Wyman, Channing, Holmes, Emerson, Whittier, Ticknor, Motley, Lowell and other American immortals. His coming marks a scientific renaissance in America and "his beneficent influence radiated around the world like the ripples from the serene and glass-like surface of a pool." His home became the center of scientific interest. He impressed American men of science who then were really not scientists in the strict sense of the word, by the thoroughness of his methods and the boldness of his theories, at once establishing new methods, new lines of thought and becoming one of the greatest science teachers the world has ever known. Moreover, his coming was epoch-making not only along the line of original investigation but also for the dissemination of scientific knowledge among the people. With him the Museum of Comparative Zoology at Cambridge starts, the U. S. government offering him every facility for studying the fauna of the continent. Through the Coast Survey and other sources he

began lines of work which were far reaching, not to say revolutionary. By his lucid methods and the charm of his engaging personality he succeeded in interesting the public in the biological wealth of their country. He was the first one to say at a time when anyone could be a teacher who was just one lesson ahead of his pupils: "Never try to teach what you do not know yourself and know well. If your school-board insist on your teaching anything and everything decline firmly to do it." But this honest man and profound scientist was above all a producer and discoverer; the bibliography of his original contributions to science institutes a monument of enduring fame, a stupendous record of work, the disinterested labor of a life-time devoted to science. When but twenty-one years of age the famous Martius collection of the freshwater fishes of Brazil and especially of the Amazon River was entrusted to him for description and classification. This led him to the study of ichthyology and after the task of describing and figuring the Brazilian fishes was completed he followed it up by the publication of the *History of the Freshwater Fishes of Central Europe*. Simultaneously he tackled the much more difficult task of studying the fossil fishes of the Alps, the results of which he gave to the world in five richly illustrated volumes of his *Recherches Sur Les Poissons Fossils*. He not only described many entirely new genera and species but established an entirely new classification. Again simultaneously with this work he investigated the fossil Echinoderms of Switzerland, publishing his result in a monograph and two quarto-volumes, all properly illustrated, besides issuing smaller monographs on Fossil Mollusca and the *Embryology of the Salmon*. All this occurred between 1829 and 1844. The year 1840 witnessed the inauguration of a new movement, which has proved to be of the utmost importance to geological science. Previously to this date De Saussure, Venetz, Charpentier and others had made the glaciers of the Alps the subject of special study and Charpentier had even arrived at the important conclusion that the well-known erratic blocks of Alpine rock, scattered so abundantly over the slopes and summits of the Jura mountains, had been conveyed thither

by glaciers—it had been hitherto assumed that they were the results of volcanic cataclysms. The question having attracted the attention of Agassiz he at once grappled with it in his wontedly enthusiastic manner. He not only made successive journeys to the Alpine glaciers in company with Charpentier, but he had a rude hut constructed upon one of the Aar glaciers which for a time he made his comfortless home in order that he might the more thoroughly investigate the structure and the movements of the ice. These labors resulted in the publication of his magnificently illustrated folio *Etudes sur les Glaciers*. In this important work the movements of the glaciers, their moraines, their influence in grooving and rounding off the rocks over which they travelled, producing the striations and "roches moutonnées" with which we are now so familiar, were treated with a comprehensiveness which threw into shade all the writing of the previous labors in this field, giving a fresh impetus to the study of glacial phenomena in the world. Of the same high character was his work on Lake Superior and his four volumes of *Contributions to the Natural History of the United States*. But whilst working earnestly at American zoölogy and geology, he still kept in view more generalized inquiries, the fruits of which appeared in 1854 under the title of *Zoologie Générale et Esquisses Générales de Zoologie contenant la structure, le développement, la classification, etc., de tous les types d'animaux vivants et détruits*. And all the while he was building up the Museum of Natural History at Cambridge. But at length the great strain on his physical powers began to tell and he was forced to seek the restoration of his health by a southern voyage. In 1865 he started for Brazil with his admirable wife and a corps of assistants. It turned out to be one of his great explorations, yielding much fruit both geologically and biologically. He followed this in 1869 with a cruise on the *Hassler* to the coast of Cuba. In 1871 he made a trip around the Horn to San Francisco in the *Bibb*, and in 1872 we find him again working upon the plan for a great marine laboratory and school which finally took shape, due to the generosity of John Anderson, of New York, who gave the island of Penekese for this

purpose and \$50,000 for its equipment. Another American friend gave him a fine yacht of eighty tons burden, to be employed in marine dredging in the surrounding seas. Penekese is the last and the least of the Elizabeth Islands lying to the south of Buzzard's Bay, on the south coast of Massachusetts. An old barn on this island had been hastily converted into a dining-hall and lecture-room. On the floor of the barn were placed three long tables. This was the beginning of the now world famous marine biological laboratories of the Atlantic and Pacific coasts. I stood in this barn long after it had been abandoned and shortly before it burnt down and copied from the old blackboard Agassiz's definition of a scientific laboratory: "A laboratory is to me a sanctuary; I would have nothing done in it unworthy its great Author," now inscribed on a marble slab in our own Science Building. This embodies Agassiz's attitude towards nature. He was essentially an idealist. All of his investigations were to him not studies of animals or plants as such but of the divine plans of which their structure was the expression. Although not a Darwinian Agassiz had no sympathy with the crude prejudices entertained in opposition to Darwinism. He believed in the absolute freedom of science, the best evidence of which is the fact that every one of the men trained by him has joined the ranks of the evolutionists. I select eight of these as preëminent among the men who contributed an important share to American science: Joseph LeConte, late professor of zoölogy and geology at the University of California; Charles O. Whitman, late professor of zoölogy at the University of Chicago; William K. Brooks, late professor of zoölogy at Johns Hopkins University; Charles Sedgwick Minot, of Harvard, by common consent the foremost anatominist of America; N. S. Shaler, of Harvard, highest authority on volcanoes and glaciology; William James, of Harvard, physiologist and philosopher, founder and most brilliant exponent of pragmatism, the new school in philosophy; Burt Wilder, of Cornell, foremost brain anatomist; and, finally, David Starr Jordan, the only living student of that group, foremost ichthyologist and chancellor of Leland Stanford Univer-

sity. What a brilliant array of men, disseminating Agassiz's influence in so many directions. LeConte, explorer of the Yosemite Valley, lucid interpreter and teacher of geological data and author of the epoch-making book on "Evolution and its Relation to Religious Thought." Whitman, organizer and first director of the Woods Hole Biological Laboratory, first editor of the *Journal of Morphology*, the *Biological Bulletin* and *Biological Lectures*, and noted for his original contributions to embryology, the cell theory, the evolution of color character in pigeon, the natural history of pigeons, and many other problems. Brooks, the most philosophical American zoölogist of modern times, noted for his scientific discoveries of the oyster, his monumental work on the tunicate *Salpa* and the problem of vertebrate origin, his startling discoveries in the group of marine crustacea and above all for his great philosophical work on *The Foundation of Zoology*, every edition of which is exhausted a month after its publication. Minot, author of the monumental work on *Human Embryology*, of which Professor His, of Leipzig, said in 1894: "Minot's work is at present the fullest human embryology which we possess," with a bibliography of more than 200 original papers to his credit. At the time of Agassiz's death, his father wrote to him: "You were among his last pupils. Your own choice of life is probably as much due to his indirect influence as to any other source, except your predisposing tastes." Shaler, pioneer in specific American geology. William James too well known in the realm of psychology and physiology to need further mention, and Jordan, still with us, known in science especially for his contributions to the fish fauna of America. Through the influence of those men hosts of young brilliant American minds devoted themselves to the deeper problems of biology and geology emancipating themselves more and more from European tutelage and founding a school of their own. I mention only a few of these problems now before the Sanhedrim of American biologists. The old theory that cells are independent bodies was successfully disproved first by Heitzman, a native of New York, but later a citizen of Vienna,

who demonstrated the fact that cells are not distinctly separated from one another but continuous protoplasmic bodies with scattered nuclei. Whitman later tackled the problem more thoroughly in his epoch-making work on the "Inadequacy of the Cell Theory." The cell theory in turn opened up a deeper investigation of the *Protoplasm*, the so-called physical basis of life, which was at first thought to be homogeneous, but is now known to be very complex except in very rare cases which have been especially elucidated by E. B. Wilson, of Columbia, a student of Brooks, in his notable book in "The Cell in Development and Inheritance." The further discoveries on the so-called vital phenomena of the cell proved that they were chemical processes, which liberate energy, manifested in the activities of the living being and dependent as the food problem so closely connected with changes in the surface tension of the cell as demonstrated by the brilliant German-American investigator Jacques Loeb, now of the Rockefeller Institute, and endorsed later by the experiments of Ralph L. Lillie, of the University of Pennsylvania. The latter's investigation led to the further study of the relation between nucleus and cell surface and the protoplasm in general, a problem which was worked out by Eyclesheimer in Minot's laboratory at Harvard as well as in Whitman's laboratory at Chicago by Harper, Patterson and Mary Blount. Closely related to the preceding studies is the investigation of the differentiation of cells into the various kinds of tissues such as muscles, nerves, bones, etc. Very little is known on the origin of such changes, because the chemical processes involved in it have not yet been studied. But we do know the progressive development of simple cells into tissues as seen under the microscope. This has been especially demonstrated by the very creditable experiments of Professor Harrison, of Yale, who studied the question for years and finally invented a new method by means of which he kept isolated cells and tissues alive in the test tube. He saw under the microscope nerve fibers grow out of young nerve cells and proved that new nerve fibers arise only in this manner. As a result of this ingenious work similar experi-

ments have been made with cancer in the Rockefeller Institute by the Franco-American Carrel with embryos by Emmel at Harvard and with many other tissues, so that W. W. Lewis, of Johns Hopkins, succeeded in studying specified cell-formation. Professor Minot coined the word *cytomorphosis* for this process of cell differentiation and carried the application of the principle further by applying it to degeneration and death, claiming that death is due to the lack of reserve cells which normally replace the senile and degenerate cells. Similar important work has been done by American investigators in the study of reproduction and inheritance. Woods and Allen, of Harvard, and Hegner, of Wisconsin, have given us an exhaustive account of the origin, development and final accumulation of the sex cells, while Moenhaus, of Indiana University, has most brilliantly demonstrated the fact under the microscope that a new individual receives its life from both parents. Conklin, of Princeton, and Lillie, of Chicago, finally established the claim that not only the nucleus but also the cytoplasm or protoplasm in general participates in the transmission of inheritable characters. Especially Conklin's work is epoch-making, it determines the nature of reproduction as the continuation of the growth of immortal protoplasm and thereby explains the nature of inheritance. Americans have likewise interested themselves in the investigations of the causes of old age, senility and death. Calkins, of Columbia, made a series of observations on unicellular forms, especially on Infusorians and found that a continued and rapid production by division led to a depression, a gradual cessation of division and final death. But this was disproved by the highly ingenious experiments with *Paramaecium* of H. S. Jennings, of Johns Hopkins University, who showed that depression is not senescence, because it does not involve change of organization and structure—it is simply a result of poor nourishment; he further proved that the process of conjugation or exchange of protoplasm between two Infusoria produced rejuvenation and irritability, preventing death altogether, so that it may be said that death only occurred when the multicellular plants and animals began

to develop. Of course, death did not come into the world by man, it came with the very first multicellular plants, *i. e.*, millions of years before man, nor is it the last enemy to be overcome, because it is no enemy at all, but a natural normal stage in the development of multicellular organisms. It is the result of differentiation and differentiation is the necessary condition for an ever-increasing progress in living organisms. Similar importance must be attached to the American contributions to the recent studies in sex determination, one of the most difficult of biological problems. McClung, of the University of Pennsylvania, and his co-workers have given us a very clear insight into the structure and nature of the so-called accessory chromosomes which determine the formation of sex. These investigations have been repeated and confirmed by a host of students of this intricate question, notably by Miss Stevens, of Bryn Mawr, and T. H. Morgan and E. B. Wilson, of Columbia. Of course, the secrets of life itself have not yet been solved and will not be solved for some time to come, not even by the most precocious Americans. But it speaks volumes for the idealistic tendencies of a nation to count among its rank and file men and women who are willing to devote a lifetime to the investigation of purely scientific questions which in the nature of the case can only find their solution in a distant future.

However, I do not want to create the impression that Agassiz and his students were the only contributors to American science, but merely endeavored to trace the new scientific method, the laboratory method to its proper source and briefly show how successfully it has been worked out within the last fifty years. Science, nevertheless, did not only flourish in the laboratories. I only need mention the name of Asa Gray, Agassiz's colleague at Harvard, to call to your mind the long and illustrious line of men who as systematists rendered valiant service to their country and the world. From Dr. Bartram, of Philadelphia, and Dr. Henry Mühlenberg, first president of Franklin and Marshall College, the two pioneer botanists of America to Lescreux, the master of mosses, and to Britton and Small, of the New York Botanical Garden, perhaps, at

present the most voluminous writers on systematic botany, from Melzheimer, of old Franklin College, the father of American entomology, to John Henry Comstock, of Cornell, William J. Holland, of the Carnegie Museum of Pittsburgh, C. V. Riley and L. O. Howard, the past and present chiefs of the United States Department of Entomology, the late A. S. Packard, of Brown University, and Vernon Kellogg, of the University of California, and the host of present-day official and unofficial entomologists; from Alexander Wilson and James John Audubon, the brilliant pioneer ornithologists of America, to Frank Chapman, the most voluminous writer on bird lore of today, there have been hundreds of eminent American naturalists at work to explore this vast country and its floral and faunal wealth, but none stands out so conspicuously as Asa Gray, of Harvard. He was pathfinder and organizer, investigator, author and educator. Born in 1810, as the son of a tanner in a small town of the state of New York he spent his childhood at the monotonous task of feeding the bark mill and driving the old horse that furnished its motive power. Without college training he was sent to a so-called medical college when but fifteen years of age and was made a doctor of medicine when not yet twenty-one years old. But to his medical studies he owed his love for botany because medicine was largely a knowledge of the healing powers of herbs. Fortunately he was a lover of nature and felt a distinct call for botany which then meant the search for hidden treasures in forest and field, the gradual accumulation of material, largely of dried flowering plants. North America was still virgin territory and the discovery of a new country is more exciting than its cultivation. However, to identify plants in those days was a tremendous task and Gray soon found himself swamped. He solicited the help of Dr. John Torrey, of New York, at that time the best-known American botanist, and found in him not only a great teacher but a helpful friend. This intimate relation lasted until Torrey's death in 1873, including as a third member in the circle Dr. Thomas Porter, of

Franklin and Marshall, and later of Lafayette College. This trio held for more than fifty years the unique position of ultimate authority in systematic botany in America. As early as 1836 Gray published his *Elements of Botany*, the first of that remarkable series of text-books which for many years dominated botanical instruction in the United States. On the strength of this book he was appointed curator of the collections of the New York Lyceum of Natural History and his career as a professional botanist began. Together with Dr. Torrey he published in 1838 the first half of the *Flora of North America*, which resulted in his appointment as professor of botany in the newly organized University of Michigan. But before entering upon his work at Ann Arbor he obtained leave of absence to visit Europe because in order to name American specimens correctly it was necessary to examine the type specimens in Europe. He studied all the herbaria of England and the continent and was thus enabled to put the identity of the older described American plants upon a sure basis. He met all the distinguished workers in systematic botany and formed lasting friendships which were of tremendous help to him in all his later work. His furlough was prolonged and finally ended in his accepting the Fisher Professorship of Natural History at Harvard College in 1842. The large opportunity had come at last and it was at Harvard that Gray made his great reputation, entering upon his duties there as teacher, author and investigator with an enthusiasm and ability that soon made Cambridge the center of botanical instruction and investigation in America. The flora of North America was still in confusion and it was Gray's mission to organize this chaotic material and to establish American systematic botany upon a secure foundation, the final outcome of which was his book on the *Synoptical Flora of North America*. His descriptions were marvels of aptness and lucidity. Besides this larger work he was constantly publishing monographs on new species and genera and a series of text-books, chief of which was his *Manual*, which appeared first in 1848 and went through

seven editions. Associated with the *Manual* were the various text-books of all grades from *How Plants Grow* to the *Structural Botany*, which was the last and most important one, written from the university standpoint in 1879 and filled with the new scientific spirit imbibed from Agassiz and Darwin. One of his most brilliant papers was a discussion of the "Relation of the Japanese Flora to that of America." The conclusions as to a former arctic connection were all the more remarkable since at that time the testimony from the boreal fossil flora was not yet known. It was this larger biological interest that compelled Gray to become the foremost expounder in this country of Darwin's theory of natural selection and the great and successful champion of the freedom of scientific investigation from theological domination. The larger fruit of this one man's influence is today shown in the monumental works of Britton and Brown's *Flora of Eastern North America*, Small's *Southern Flora* and Coulter's *Rocky Mountain Flora* and of innumerable minor local publications.

With the widening of knowledge and the coming of the scientific spirit the American university made its appearance as a center of research, and Gray's students and followers were in great demand. Farlow, of Harvard, and Setchel, of Leland Stanford, conspicuous authorities on algae and fungi, Bessey late of Nebraska, interpreter of the grasses, Rothrock, late of the University of Pennsylvania, organizer of forest research, Wilson, formerly of the University of Pennsylvania, organizer and director of the Philadelphia Museum, Goodale of Harvard, authority on economic botany, Robinson, Asa Gray, professor of botany at Harvard, and a host of others. Belonging to the great gallery of modern scientific botanists with leaning towards the Gray school we must mention Coulter, of Chicago, dominant in plant morphology and ecology, the late Professor Underwood, of Columbia, master of fern lore, MacFarlane, of the University of Pennsylvania, chief authority on hybridization and the structure and life history of carnivorous plants, Harshberger, of the same university, author of the

monumental work on *A Phytogeographic Survey of North America* and many more of like distinction. In a somewhat radical contrast to the Gray School on the systematic side developed the Columbia School of Botany under the leadership of Dr. N. L. Britton, giving new impetus to systematic work, revolutionizing nomenclature and exploring every nook and corner of the American continent for new treasures. But the man who applied most successfully the results of exact botanical science to practical ends, to agriculture and horticulture, is a Cornell professor, a former assistant to Asa Gray, the brilliant L. H. Bailey, who excels all others in the prolific output of botanical literature; author of many scientific and practical texts on the care and breeding of plants in farm and garden he has crowned his wonderful productivity by giving to the scientific world a cyclopedia of American Horticulture in 4 volumes; a cyclopedia of Horticulture in 4 volumes and a Standard Cyclopedia of Horticulture in 6 volumes, surely a most remarkable exhibition of American energy and scientific genius.

However, the chief practical result that may be deduced from the labors of both Agassiz and Gray was the influence on federal legislation. In rapid succession we witness the establishment of a bureau of animal industry with a large staff of scientific experts under the department of agriculture with a special section, the department of entomology and pomology, perhaps the finest and most useful in the world under the direction of Dr. L. O. Howard with parallel institutions in almost every state of the union. This was followed by the organization of bureaus and boards of health and sanitation in almost every city and hamlet and these in turn were followed by the schools and departments of forestry, foremost among which are Yale and Ann Arbor, all turning for their source of information to the Smithsonian Institution, that marvellous storehouse of accumulated information and wealth of treasures collected in all corners of the world, but especially complete in its representation of American life and learning. Joseph

Henry and Spencer Fullerton Baird, from Reading, Pa., a quondam professor at Dickinson College, are the two men who gave the Smithsonian a world-wide reputation from the beginning. Last but not least, the scientific spirit found its most accurate expression in the establishment of the Federal Bureau of Standards at Washington with its host of skilled research scholars and its model laboratories. And private enterprise did not lag behind the federal example. The world-famed Rockefeller Institute for Medical Research together with a dozen or more Carnegie Experimental Stations scattered over the country render valiant service both for pure science and the advancement of human welfare. The influence of biology on medicine is so far reaching in our day and so much is being done in the physiological laboratories of all our great universities and medical schools that I must refrain from even mentioning the most salient facts for want of space. However, the real epoch-making work in internal medicine is still to the credit of the scientific men on the other side of the Atlantic and the names of Carrel, Loeb and Meltzer remind us that we are still working with foreign capital. Nevertheless a beginning has been made. The daring spirit of the American prefers the more picturesque labor of surgery to the silent, painstaking experiments of the laboratory, and thus it happens that we have world-renowned surgeons but not world-renowned therapeutists. But our beginning is creditable. In addition to the Rockefeller Institute for Medical Research in New York with its endowment of three million dollars we have the laboratory for the Investigation of Cancer at Buffalo, supported by the state of New York, the Phipps Institute for the Study of Tuberculosis in Philadelphia and the Institute for the Investigation of Infectious Diseases, endowed by the McCormacks, of Chicago. Almost all the states have made appropriation to be used exclusively in the education of the public concerning tuberculosis. The general government, however, is not doing its full share. The average annual expenditure upon the army and navy for the past ten years is sufficient to establish a three-

million-dollar Rockefeller Institute in every state and territory of the Union and still leave more than the amount of the present magnificent endowment of the Pasteur Institute of Paris. Contemplate for a moment the benefits which would come to the human race from a discovery of a means of preventing or curing pneumonia, from which as many die today as did a hundred years ago in spite of all that has been done; or what a boon it would be to humanity if cancer should be brought under control as have smallpox and hydrophobia?

But these are idle questions. Let me hurry on and inquire what America has done in the realm of chemistry and physics. We all agree that today chemistry is in point of practical value the science par excellence. The chemical department of every institution is overrun with students. Why? Because it is particularly fascinating to the young students and the new industries are constantly demanding more chemists. Besides, chemistry is undoubtedly the key to our physical happiness and may become in the future the key to a full understanding of life in general. In 1850 there were only four or five institutions in the United States which could boast of a chemical laboratory and these were equipped in the most primitive way. The first one was built in connection with the medical school of the University of Pennsylvania. Yale College had a small laboratory, established by Professor Silliman, a laboratory large enough for a dozen students. Amherst had just opened a small laboratory and the Lawrence Scientific School likewise had a very imperfect one. There were perhaps two or three other institutions which had so-called chemical laboratories. There were no systematic courses of study and no courses in applied and industrial chemistry. For such work students were obliged to go abroad. It is not surprising therefore that little or no progress should have been made during the next twenty or thirty years in the teaching of chemistry. There were however, a few great teachers of chemistry. Such men as Silliman, of Yale, and Cook, of Harvard, stood out preëminently during the fifties and sixties, while men like Elliot, Remsen,

Chandler, Morley, Mabery, Mallet and others have given the institutions with which they were connected such a standing as to place them on the same plane with the older institutions of Europe. Silliman, who was professor in Yale College from 1806 to 1864, invented the compound blowpipe, was the first to observe the fusion and volatilization of carbon in the arc, was also first in the United States to obtain metallic potassium from its hydrate and published more than sixty scientific memoirs on minor problems. Among other original investigation may be mentioned a laborious exploration of the gold mines of Virginia, a study of the coal formation of Pennsylvania and a scientific examination of the culture and manufacture of sugar, which was undertaken by appointment of the United States government. Silliman occupies about the same position in chemistry as Agassiz did in biology; he was the first pioneer in the application of accurate scientific laboratory methods to chemistry. But the one man who stands out most conspicuously for brilliant original research work in chemistry in the early days of American science is Walcott Gibbs, who was Rumford professor of applied science at Harvard University from 1863 to 1887. As a junior in Columbia College he gave to the scientific public a new form of voltaic battery, in which for the first time carbon was used as the negative electrode. In his dissertation of 1845 upon a natural system of classification he showed a power of discrimination and understanding of analogies in crystalline form in relations of combination and types of compounds that betrayed the superb order of chemical intellect. In a series of contributions upon analytical chemistry he devised new methods for the determination of various metals, he simplified hitherto complex procedures in the separation of manganese from allied metals, and of the rare cerium from its almost constant associates lanthanum and the two didymiums; he likewise paved the way for the later contributions upon the use of sodium thiosulphate as a reagent of separation, of hypophosphorous acid as a qualitative precipitant of copper and of others, too numerous to

mention. In 1857 he worked out in conjunction with Dr. Genth the nature of the combination of the cobalt compounds, a most brilliant piece of work, which arrested the attention of European minds to such a degree that Werner, of Zurich, took it up and through it solved the problem of the cobalt constitution. He later on carried out an exhaustive study of platinum ore and found new processes of the separation of its salts. But it was not only in the field of analysis or in synthetic inorganic chemistry that Gibbs was busy, but he also tackled the problem of organic compounds, particularly the methyl and ethyl derivation of silicon and the molecular structure of uric acid and its derivations. Walcott Gibbs is also the father of electro-analysis, that branch of gravimetric analysis which today is widening its applications and winning for itself a distinct and permanent place in the great domain of analytical chemistry. But his great crowning study of chemistry was that relating to complex inorganic acids and compounds in which several acid radicals unite to form a nucleus with functions like a single radical. Truly Gibbs was a master mind in the realm of chemistry. His most famous student while yet in the College of the City of New York, was Ira Remsen, professor of chemistry at Johns Hopkins University from its beginning in 1876 till now, though at present emeritus. He is today the Nestor of American chemists, most widely known and respected for his brilliant contributions to organic chemistry, more particularly for his discovery of saccharin, "the sweetest thing on earth," four hundred times as sweet as sugar, growing out of his great work on the oxidation of aromatic substitution products and the decomposition of diazo-compounds. He is a very interesting man and tells very charmingly the story of his discovery in a recent commencement address: "Nearly thirty years ago in the laboratory under my charge an investigation was being carried on that seemed as little likely to lead to practical results as any that could well be imagined. It would be quite out of the question to explain what we were trying to do. Any practical man

would unhesitatingly have condemned the work as being utterly useless, and I may add that some did condemn it. There was no hope, no thought entertained by us that anything practical would come of it. But lo! one day it appeared that one of the substances discovered in the course of the investigation is the sweetest thing on earth; and then it was shown that it can be taken into the system without injury; and finally that it can be manufactured at such a price as to furnish sweetness at a cheaper rate than it can be furnished by the sugar-cane or the beet. And soon a great demand for it was created and today it is manufactured in surprising quantities and used extensively in all corners of the globe. Thousands have found employment in the factories in which it is now made and in Europe it has become the sweetening agent of the poor, it being sold in solution by the drop." But I must not tarry too long at individuals. There are some forty branches of chemistry today taught in our great American universities and hundreds of bright minds are doing research work both in pure chemistry and in chemistry applied to agriculture, to the arts and the industries. In pure chemistry Edward Morley, professor of chemistry at Western Reserve University since 1869, holds the palm for the older generations, while Professor Richards, the brilliant Harvard star, leads the race of the present-day men. Morley, renowned for his work on the atomic weight of oxygen, the density of oxygen and hydrogen, the vapor density of mercury from 0 to 100°, etc. Richards, of Harvard, has outdistanced his older colleague not only by the enormous volume but also by the universal recognition of his investigations on the atomic weights of more than a dozen of chemical elements, on the spectra of gases, on the electrical resistances and thermal expansion of gases, on electro-chemical equivalents, on heat capacity, on the birth and growth of crystals by micro-kinetoscope and a host of other problems. I should perhaps also mention J. A. Mallet, of Virginia, a veteran like Morley as the third of the trio of noted investigators in the field of atomic weights, although his work was slightly different, deal-

ing with atomic masses and molecular weights of metals and acids. Were I to write on the stupendous work on all minor original problems carried on today in all our great universities and technical schools it would fill an encyclopedia. I can only confine myself to a few stars of first magnitude; our chemical journals report every month of dozens of new discoveries in the various branches of chemistry, the latest of which is physical chemistry. Suffice it to say that America is doing her full share in the perfection of methods and processes at the University of Pennsylvania in electro-chemistry under the versatile Edgar F. Smith, in Johns Hopkins, in Princeton and many others in physical chemistry, in Cornell in agricultural chemistry and at the Boston Tech. in industrial chemistry, etc. Even our western institutions of lesser fame, such as the University of Seattle, add lustre to the American name by solving local problems, such as the utilization of timber fragments, etc. I had the pleasure last summer of visiting the unique laboratory of one of my former students, Professor Benson, of Seattle, and witness the extraction of all sorts of products from timber waste.

Speaking of physical chemistry I cannot refrain from briefly touching upon the life and work of another early American genius, viz., Professor Willard Gibbs, who might be called the father of physical chemistry, although he was preëminently a physicist, a theoretical physicist who paid no attention to the invention of useful articles or the promotion of manufactures. He also was trained in Europe, like Agassiz and Silliman, Walcott Gibbs, Morley, Remsen, etc. Magnus, Helmholtz, Kirchhoff and Clausius were his teachers. In 1871, two years after his return to America, he was elected professor of mathematical physics at Yale, a position which he held to the time of his death thirty-two years later. Yale has no name upon her roll of honor that stands for more originality and profundity in science than that of Gibbs. In 1873, when thirty-four years of age, he published his first paper, a discussion of the methods for the geometrical representation of the thermo-

dynamical properties of bodies. It is impossible to give a popular explanation of this work, suffice it to say that it has been of great value in the development of the science of physical chemistry. It was not understood in America but Clerk-Maxwell, of England, devoted considerable space to it in his *Theory of Heat*. In 1876 and 1878 Gibbs published a paper entitled "On the Equilibrium of Heterogeneous Substances," an epoch-making work, which laid the foundation of the new science of physical chemistry. He laid down laws for phenomena that had not then been observed and gave in advance solutions to problems that had never been formulated. This paper was translated sixteen years later by Ostwald into German and into French in 1899 by Le Chatelier. Ostwald, the present-day master mind of this science, said in the preface: "Of the almost boundless wealth of results which this paper contains, or to which it points the way, only a small part has, up to the present time, been made fruitful. Untouched treasures in the greatest variety and of the greatest importance to the theoretical as well as to the experimental investigator still lie within its pages." Unfortunately America could not appreciate Gibbs as yet. If American chemists had begun research thirty years ago on the lines indicated by Gibbs they would have led the world in the development of physical chemistry. Yale graduates who went abroad to study chemistry were sometimes first set to study the work of Gibbs, whom they had never known at college. For obvious reasons I cannot go into an explanation of this most marvellous contribution to physical chemistry. Gibbs's final work was on the *Elementary Principles of Statistical Mechanics*, in which he attempts the gigantic task of applying mathematical methods to the study of the motions of very complex systems too minute and complicated for detailed observation, as, for example, the vibrations of the molecules of a solid due to heat. All of his work has now been made available by the publication in 1906 of *The Scientific Papers of J. Willard Gibbs* in two volumes by Longmans, Green and Co. Ostwald has called this mathematician "the founder of

chemical energetics" asserting that "he has given new form and substance to chemistry for another century at least."

However, we cannot discuss America's share in physical science without doing justice to the memory of Benjamin Thompson, known as Count Rumford, born as a poor New England boy, honored in England as under secretary of state under the name of Sir Benjamin Thompson and in Bavaria under the name of Count Rumford of the Holy Roman empire, as privy councilor, minister of war, chief of police and chamberlain to the Elector Palatine; in Paris, husband of a femme savante of a French salon, finally dying alone and friendless in the city where he had been honored by Napoleon while living, and was eulogized by Cuvier when dead. England owes to him her Royal Institution as we owe our similar Smithsonian Institution to an Englishman. As an intellectual free lance he did service in as many different realms of science as he did military service in different countries. He laid the first foundation of the greatest generalization the human mind has yet conceived, the law of the conservation of energy, and he explained the construction of coffee pots. He was in action and thought a paradoxical philosopher.

Born in Woburn, Mass., in 1753, deprived of his father when but three years of age and with him of his paternal care and patrimony, young Thompson received a very meager education as far as the time of his schooling was concerned, but the equality of his training was of the highest order. Thomas Barnard, a very scholarly minister of the Congregational Church at Salem, taught him algebra, geometry, astronomy, and even the higher mathematics, and before he was fourteen years of age he was able to calculate and trace accurately the elements of a solar eclipse. As clerk to a dry goods dealer in Boston he had little to do and soon returned home, where he found sufficient time to attend the lectures of Professor Winthrop on experimental philosophy at Harvard. Every day he and his friend Baldwin, later colonel in the Revolutionary Army, walked eight miles from Woburn to Cambridge and on

their return repeated the experiments in mechanics and electricity with apparatus of their own construction. Out of gratitude he later bequeathed his whole estate to Harvard to found a professorship "to teach the utility of the physical and mathematical sciences for the improvement of the useful arts, and for the extension of industry, prosperity, happiness and well-being of society." Dr. Jacob Bigelow was first elected to the Rumford professorship in 1816. His successors have been Daniel Treadwell, Eben Hanford, Walcott Gibbs and John Trowbridge. The political situation drove Thompson to England when but twenty-three years of age and he became here at once a member of the colonial office, with the assigned duty to improve the military efficiency of the army. He devoted his attention to the problems of explosives and laid the foundation of the science of interior ballistics by an attempt to measure the explosive force of the gases produced by the explosion of gunpowder, inventing a machine which has ever since been known as the "Rumford apparatus." His scientific work attracted attention and in 1779 he was elected a Fellow of the Royal Society and in 1784 he was knighted. In search of military adventures he entered the Bavarian army, where he rose rapidly and had many honors conferred upon him. He established a veterinary school and improved breeds of horses, and to develop the artillery service he built a foundry at Munich where guns were constructed according to his designs, based upon careful experimentation. This forerunner of the Krupps adopted the method of casting both brass and iron cannon solid and boring them afterwards and it was while superintending this operation that he made the observation which led to his greatest discoveries, that heat is not an imponderable liquid material substance but a mode of motion, and that there is a definite quantitative relation between mechanical work and heat. The "Inquiry Concerning the Source of Heat Which is Generated by Friction" is one of the shortest of his scientific papers, but it would be hard to match it in all scientific literature for originality of conception, im-

portance of matter, completeness of experimental demonstration and clearness of expression. Tyndall quotes it in his *Heat as a Mode of Motion* with the remark: "Rumford in this memoir annihilates the material theory of heat. Nothing more powerful on the subject has since been written. He not only connected heat, light, chemical action and mechanical movement together as capable of being converted into one another, but boldly extends the generalization to animal life. Since the horse turned the cannon, the strength of the horse can be made to produce heat without fire, light, combustion or chemical decomposition and this heat he characteristically suggests could be used to cook victuals if desired. But this method would be cumbersome, for more heat might be obtained by using the fodder necessary for the support of a horse as fuel." The complete demonstration of this suggestion, that an animal can be considered simply as one form of heat engine, was only given within the last fifteen years by Professor Atwater, of Wesleyan University, Conn., by his experiments with a calorimeter large enough for a man to live in.

Count Rumford's mind turned with marvellous rapidity from the formulation of a natural law to its application to daily life and vice versa. His name is therefore found among the founders of a large number of branches of pure and applied science. No one can write the history of the development of our knowledge of heat, light, radiation, conversion, cohesion, ballastics, cooking, fireplaces, buildings, clothing, traction, bathing, hospitals, barracks, glaciers, meteorology, conservation of energy, gravitation, theory of colors, or lamps, without mentioning Count Rumford. He applied his theory of heat to cooking ranges and laid down the principles in conformity with which Professor John Kemp, of Columbia College, had the first range constructed in this country in 1798. It is impossible here even to mention the innumerable devices which he invented for the improvement of human comfort and happiness; suffice it to say that this single American has done more good to Europe and the rest of the world through his scientific

researches than all the munition manufacturers together can undo.

Thirty-four years after Count Rumford's death in 1848 there was born in Honesdale, Pennsylvania, a boy who was to match the genius and renown of the soldier-scientist in the realm of physics, Henry Augustus Rowland, late professor of physics in Johns Hopkins University. Classic traditions were strong in the Rowland family, his father, grandfather, and great-grandfather having been graduates of Yale and clergymen, and his widowed mother had no other thought than that Henry would follow in the succession and keep up the traditions of the family, but Henry decided otherwise. He turned from the torture of Latin and Greek, as he called it, at Philipps Andover Academy, to the Rensselaer Polytechnic Institute at Troy and was supremely happy. In 1873, when but twenty-five years of age, he sent an article on the magnetic permeability and the maximum magnetization of iron and steel to Clerk-Maxwell, after it had been rejected by a well-known American scientific journal, and Maxwell sent it to the *Philosophical Magazine* for immediate publication. It established his reputation and led to his election in 1875 as first professor of physics in Johns Hopkins University. Before entering upon his duty he went to Berlin and was received into Helmholtz's laboratory, where he performed his noted experiment demonstrating that a magnetic effect is produced when an electrically charged body is set in rapid motion. It was of fundamental importance to electrical theory. On his return to Baltimore Rowland took up Rumford's work and soon devised a method for the redetermination of the mechanical equivalent of heat. It was published in full by the American Academy of Arts and Sciences and the Rumford prize was awarded to Rowland. In 1881 he was appointed a delegate of the United States to the International Electrical Congress that met at Paris. Realizing the importance of the accurate measurement of electrical quantities he made a thorough study of the fundamental quantity, the ohm. This work was afterwards repeated

and extended at the request of the United States government. The results are of great importance and are generally accepted. Perhaps the best known achievement of Rowland is the concave grating. In order to study light from different sources it is necessary to analyze it. This is most readily accomplished by means of a prism. As is well known, when sunlight is allowed to pass through a prism it emerges in the form of a spectrum, which gives the well-known colors of the solar spectrum. Now every light has its own spectrum and from it much can be learned in regard to the source of light. By means of it we can tell what chemical elements occur in the atmosphere of the sun and of the fixed stars. Light can be analyzed also by allowing it to fall upon a surface upon which a large number of parallel lines have been ruled very close together. Such plates are called diffraction gratings. Rowland felt that much progress could be made by larger gratings; it also occurred to him that if lines should be ruled upon a concave surface it would be possible to photograph spectra directly without the use of prisms and lenses and with much better results in every way. It was not long before the first concave grating was ready for use and Rowland's maps of the solar spectrum in course of preparation. He went to Paris in 1881 and took some of his photographs and gratings with him. Some English, French and German luminaries in physics were invited to examine his work. It created a sensation. The English men of science were dumbfounded. Professor Trowbridge, of Harvard, writes to President Gilman of the meeting: "When he said that he could do as much in an hour as hitherto had been accomplished in three years, there was a sigh of astonishment and then cries of Hear! Hear! Professor Dewar arose and said: 'We have heard from Professor Rowland that he can do as much in an hour as has been done hitherto in three years. I struggle with a very mixed feeling of elation and depression; elation for the wonderful gain in science; and depression for myself, for I have been at work for three years in mapping the ultra-violet.' De la Rive asked

how many lines could be ruled by Rowland. The latter replied: 'I have ruled 43,000 to the inch and I can rule 1,000,000 to the inch, but what would be the use? No one would ever know that I had really done it!' Laughter greeted this sally. The young American, Professor Trowbridge says, was like the Yosemite, Niagara, Pullman palace car—far ahead of anything in England." Unfortunately for science Rowland suffered from an incurable disease. He knew it and worried over it because his family was not adequately provided for. This led him during the last few years of his life to give much time to working out a beautiful and important system of telegraphy. The Rowland octoplex printing telegraph has since become widely known; by means of it four messages can be sent in both directions over a single wire. The machine is very ingenious; it looks like a typewriter. It won the Grand Prize at the last Paris Exhibition. Rowland died when but fifty-five years of age, honored all over the world by the election to honorary membership in all the noted scientific societies and overwhelmed with degrees and medals.

But I have already gone beyond the limits of the reader's patience and have not touched upon the share of American science in geology, anthropology, astronomy, genetics, engineering and other fields of research. I can only refer to the wonderful work of Professor Marsh, of Yale, called by the French savant Gaudry when rewarding the prize to him "the chief of the constellation of distinguished men who are giving their attention to fossil vertebrates"; of Professor Cope, late of the University of Pennsylvania, a peer of Marsh in the same line of work; of Scott, of Princeton, and Osborn, of Columbia, of the same international fame in similar lines; of Chamberlain, of Chicago, the propounder of the planetesimal theory which has displaced Newton's time-honored nebular hypothesis of the origin of the planets and stars; of James Dwight Dana, of Yale, the father of American geology and mineralogy, still alive in his marvellous text-books; of Simon Newcomb, late of Johns Hopkins University, perhaps the most brilliant Amer-

ican astronomer, author of many books on astronomy and mathematics, contributor of 376 papers on original research, political economist by avocation and novelist for recreation, foremost among all American men of science in the acquisition of honorary degrees, no less than eighteen having been conferred upon him by as many universities representing all the foremost nations of the world. It was his influence that inspired the erection of the Lick Observatory, his spirit that has led the younger astronomers of our country to still greater achievements. Saying this we do not undervalue the brilliant work of Asaph Hall, the discoverer of the two satellites of Mars.

Passing from the oldest of sciences to the newest, the science of genetics, or perfect living, from the consideration of the inert heavenly bodies to the study of heavenly living, we must also here accord America the palm of equal rank with England, where the science had its start. C. B. Davenport, of the Cold Spring Harbor Experiment Station, Castle and Tower, of Harvard, Morgan, of Columbia, and a host of enthusiastic younger men give great promise that the studies in heredity and the experiments made on animals and plants, particularly those of Burbank, will eventually lead to a purer, cleaner and healthier average of organic existence including that of man than the world has ever seen. In practical application of the discoveries made by pure science, America leads the world in many branches of industrial research; our patent office grants annually twice as many patents as all the other countries taken together and the time will come when our governments of city, state and nation will no longer be government by amateurs but government in the hands of experts. Each advance in industrial and political science must be studied, organized and fought like a military campaign. Or, to change the figure in the words of another, "In the early days of scientific research, scientists patrolled the shores of the great ocean of the unknown and seizing upon such fragments of truth as drifted within their reach, turned them to the enrichment of the intel-

lectual and material life of the community. Later they ventured timidly to launch the frail and often leaky canoe of hypothesis and returned with richer treasures. Today, confident and resourceful, as the result of many argosies, and having learned to read the stars, organized, equipped, they set sail boldly on a charted sea in staunch ships with tiering canvas bound for new El Dorados."

LANCASTER, PA.

II.

WENDELL PHILLIPS AND THE ABOLITION MOVEMENT.

T. G. HELM.

If, in the year of our Lord 1965, some definite conclusions may have been reached on the merits of the various colored papers, colored figuratively as to contents, issued by the nations now at war, and if out of those conflicting accounts the responsibility for beginning the war shall have been settled, there can be no doubt that fifty years hence our historians and statesmen will scarcely be agreed upon the causes and effects and the ultimate influence and results of this greatest war in the history of the world. We do know that in England the work of Cromwell and the great revolution of his times produced changes so profound and so far-reaching that almost two centuries elapsed before the story was correctly told. In our own country the controversy over slavery and states' rights, followed by that most dramatic and most momentous episode in the history of our country, the Civil War, produced changes—economic, political, and social—so profound, and the revolution in men's ideas and their aspect of history has been so far-reaching as to make equally difficult the story of what has sometimes been called the Romance period, but which might better be called the tragical period of American history. Perhaps in the twentieth century, in an age of science, we may succeed better in writing our past than did the English. The last word has not yet been said or written. Within the past decade a dozen books have appeared. Nor is the age-long problem yet fully settled. It is one of the anomalies of history that as we trace its progress, follow the causes which led up to secession, war and reconstruction, the negro, the cause of it all, is located

geographically much the same as he was at first. Our attention has been called to the chord that connects the burning of a negro by an excited mob in our own state to another excited mob in Farmington, Mass., on July 4, 1854, burning the federal constitution. Ex-Secretary Herbert says: "One body of outlaws was defying the laws of Pennsylvania, the other was defying the fundamental laws of our nation."

Writers to-day on slavery and its problems are more charitable in spirit and in tone than those of fifty years ago. Slavery to-day is dead, and to denounce it now seems, as Goldwin Smith says, "like trampling on a grave." Fifty years has stilled much of the passion and hushed the arguments which then obsessed the minds of men north and south. As we look back at our past we wonder at the "extraordinary psychological aberrations" to which the best of men were prone, wonder at the intensity of passion, the violence of speech, the fierceness of action.

Our study takes us back among those stirring scenes into the midst of those turbulent times that tried men's souls. The anti-slavery movement is as old as the history of our country. Before the revolution men North and South argued that slavery was a kind of thievery and the Quakers quite early began to make "slave keeping" a reason for disfellowship. The American Revolution intensified a new line of argument. Men began to realize the inconsistency between the agreeable state that all men are created free and equal, and the horrible fact of human slavery. Negro slavery was hardly in the minds of those who penned those "splendid generalizations." After the formation of the first American Anti-Slavery Society in 1775 one northern state after another uprooted slavery, and it seemed as though several southern states would follow. As early as 1776, when the question of representation arose Congress discovered that the North and South were at odds over slavery. In the federal convention of 1787 the rivalry and jealousy between slave and free state led to the "Federal Ratio" for the House of Representatives, a compromise on the

slavery question. Provision then had also to be made, since there existed free states, for the delivery of fugitives from justice who might escape from one state into another. It seems as though those framers of the constitution felt and understood the iniquity of slavery, and couched in colorless language protection of African slaves as we have it in Sec. IX, Art. I of the constitution. Again in the Fugitive Slave Law of 1794 there is no direct mention of slavery. In both instances it would seem as if our forefathers did not dare to mention the name.

Upon the passage of the Missouri Compromise the two sections of our country, North and South, observed an ominous silence, which continued for ten years. Congress had, however, from the beginning, asserted its right to deal with slavery and in the Missouri Compromise reiterated the right to deal with slavery in any territory at its discretion. This marks the first of the many struggles raised in Congress in the next forty years. The anti-slavery spirit of Congress was the reflex of a powerful movement throughout the North and South which became a distinct propaganda. Four religious denominations in general assembly held slavery to be utterly inconsistent with the law of God and totally irreconcilable with the spirit and principles of the gospel of Christ, a position which was not maintained by the Church generally during the abolition period. Anti-slavery societies spread rapidly in all the states except only in New England and the extreme South. On the authority of Herbert there were in 1826 one hundred and forty-six anti-slavery societies, of which one hundred and three were in the South. A third form of the anti-slavery propaganda, colonization, needs merely to be mentioned and then dismissed, for it failed, in part because of the abolition agitation itself, chiefly because the negroes were found incapable of self-government.

The question arises, why did not the South do away with slavery? We have seen how, before 1830, the anti-slavery sentiment influenced the South as well as the North. The reasons are not far to seek. In the North, where slaves were

few and their labors unprofitable, emancipation was easy; in the South the problem was more difficult. Slaves were numerous and the system was interwoven economically and socially with the very fabric of its existence. While the legal statutes on slavery were as firmly fixed as the inheritance of property or private ownership of land, the objection on moral and ethical grounds for a long time appealed even to the South. With the rise, however, of cotton planting, its profits greatly enhanced by the invention of the cotton gin, slavery became a fixed, unalterable fact. In defense of the South let it be remembered that it did occur to thoughtful men that a solution might be adopted as in England that is, the emancipation of the slaves with compensation from the general government. The federal constitution, however, conferred upon the federal government no power over slavery in the states—no power to emancipate slaves or to compensate owners. The problem seemed too large for the individual states. Moreover the incompatibility of the races was an appalling thought to the Southerners, and even Lincoln, in 1858, said: "There is a physical difference between the white and black races, which, I believe, will forever forbid the two races living together on terms of social and political equality."

In 1829, when Jackson became president, the force of the anti-slavery movement seemed to have been spent. The church no longer protested, societies were dying out, few militant leaders were in the field, colonization was doing nothing and in Congress there was only one anti-slavery man. Gloom and despair filled the breasts of the few agitators in the North. The movement against slavery, which seemed almost to have died out at this time, now suddenly blazed forth with renewed fierceness. Two reasons account for the beginning of this new movement. Men were growing tired of human bondage. Slavery was disappearing in Central Europe and the Latin-American countries, conditions which could not but influence sentiment in our country. The chief reason was the change of the public mind on various reform movements. On the slavery question the inconsistency of slavery and freedom was made the

basis of men's thinking. Men saw the institution of slavery affecting our social life, our religious feelings, our political ideas and our business interests. Truth could no longer be suppressed, feelings no longer stifled. It was this attitude of mind on the part of men and women of the thirties, at first a very few, which gave rise to the abolition movement.

The origination of the movement has been ascribed to Benjamin Lundy, who also has been given the credit of being the first abolition journalist. His disciple, William Lloyd Garrison, a man greater than his master, became the head of a moral movement against slavery which was soon to convulse the whole country. In the first number of *The Liberator* Garrison gives what has been called "a microcosm of the whole abolition agitation." He writes: "I shall strenuously contend for the immediate enfranchisement of our slave population. I will be harsh as truth and as uncompromising as justice on this subject. I do not wish to think, or speak, or write with moderation. I am in earnest. I will not equivocate, I will not retreat a single inch, and I will be heard."

A distinction is made between the anti-slavery movement and the abolition movement. The anti-slavery people believed that slavery was wrong and dangerous and they wished to see an end to its extension and to its evil effects on society. Most of these men in the North disclaimed any intention of interfering with slavery in the Southern states. They would have slavery and slave power remain where it was, but maintained that it should not be projected beyond its present bounds. The abolitionists, on the other hand, while they were anti-slavery men, went far beyond this position. They would get rid of slavery as quickly as possible. They would destroy it speedily, root and branch, at any cost. To that end they would ignore ancient customs and authority, ignore the state, ignore the constitution. Professor Hart has thus defined the two classes: "Anti-slavery was a negative force and attempted to wall in an obnoxious system of labor so that it might die of itself. Abolition was a positive force, founded on moral considerations, stoutly denying that slaves could be a good thing for anybody,

and perfectly willing to see the social and economic system of the South disrupted." Now there were times when these two movements came very close together and even joined forces, but the distinction held all the way to the Civil War. Such champions of the anti-slavery movement as John Quincy Adams and Abraham Lincoln always maintained that they were not abolitionists.

Since this paper is to deal more particularly with what is generally called the Garrison movement it is well to remember that there were, besides this group, at least three other groups of abolitionists. In New England there was one led by Dr. William Ellery Channing, who disliked Garrison's severity of tone and method, and who, by his pen, suggested other remedies for the evil than that of immediate emancipation. This group developed a number of able orators, poets and satirists. In New York and Pennsylvania the Middle States group enlisted such men as William Jay, son of Chief Justice Jay, and wealthy merchants such as Arthur and Louis Tappin. These men were less radical than the Garrison abolitionists. They were among the earliest to enter politics, furnished money for aiding journals, schools and colleges, and resisted the commercial influences of New York and Philadelphia. A third group, with its center at Oberlin, Ohio, was originally composed of a party of seceders from the Lane Theological Seminary, a secession being occasioned by a debate over the slavery question. In time they formed societies throughout the West, organized the underground railroad and set in motion a political abolition party. All of these groups had their part in the great abolition struggle and would doubtless have made themselves felt had men like Garrison never lived.

The particular leader chosen for our study was most fully in sympathy with the Garrison movement yet he identified himself, more or less, with all three groups. Immediate emancipation was the slogan of this party. The movement grew slowly. In 1832 the New England anti-slavery society was organized by fifteen men and at the time afforded great amusement. What can these "nobodies" do to abolish an institu-

tion, recognized by the constitution, upheld by half the country, and supported largely by the other half. The severest opposition and the rankest prejudice confronted these men from the start. Such an agitation and such a propaganda, were it to be successful, would disturb loyalty to the Union, derange business and interrupt the country's prosperity. This movement, promoted and agitated through the freedom of the press, and freedom of speech, must be suppressed, even if the only recourse be mob law. It was one of these mobs, a crowd, it is said, "of gentlemen of property and standing," which having seized Garrison dragged him with a rope around his neck from the *Liberator's* office through the streets of Boston, that first attracted the attention of Wendell Phillips as he sat one October day in 1835 in his office on Court Street. "Who is that?" Phillips asked, "Why that's Garrison, the damned abolitionist, and they're going to hang him." Phillips followed the crowd and witnessed the acts of the rioters. Wondering why the guards were not called out, he was told "Why don't you see that the regiment is in front of you?" Phillips saw there, indeed, the merchant clerks and the young men of the city belonging to the militia, who instead of protecting the city's tradition of liberty and free speech, composed the crowd which attacked a single abolitionist. Whether Wendell Phillips had been an abolitionist before this time it is not possible to say. There can be no doubt that the mob and its violence shocked Phillips's sense of decency and of right and he went back to his office to think profoundly about the "damned abolition cause." To hang a man for his opinions was contrary to his faith, to his character, to all the idols which he held dear. Steeped in the history of the French and American revolutions, born on soil consecrated to liberty, he held free speech the most important and the most sacred of human rights. Whether it was that scene of the mob, or whether it was the inspiration of that noble woman who was soon to become his wife, there can be no doubt that the cause of abolition had in Wendell Phillips from this time on to the close of the conflict, the one man above all men who was the orator of the anti-slavery cause. Perhaps

no man save Mr. Garrison did more, surely no man did more on the public platform, to educate and to create and mould a public sentiment which opened the way to emancipation. No man of all the great orators of his time better illustrates the power and influence of the platform for the cause of right, and never, perhaps, was eloquence of the highest order consecrated to a nobler cause.

Wendell Phillips was the fifth son of the sixth generation of that name. He sprang from a noble lineage. His forebears represented the best of the merchants, the lawyers, the judges and the statesmen. He was possessed with every conceivable advantage. Exalted natural endowments, a brilliant and powerful mind, the ripest culture of Harvard, social standing and prestige of the highest order, great personal magnetism, all these predicted for him a noble and brilliant career. Now we see him abandon his profession and his friends, abandon the many avenues of preferment and distinction about to open before him to espouse what seemed to be a hopeless and despised cause and to meet thereby the ridicule and abuse of the press and to live for twenty-five years almost daily in danger of his life. Phillips's tribute to Charles F. Hovy, a Boston merchant, well represents a cardinal principle in Phillips's own life and practice. "To be independent of the world, it has been well said, is little. To differ, when reason bids, from our immediate world, is the test of independence."

No attempt will be made to narrate the history of the abolition movement. Only a few leading events can be touched upon such as illustrate the aims, the motives, the methods and the results achieved by this great agitator. In the first years of Phillips's alliance with the movement his plea was for universal freedom and the right of petition. The next year he spoke in defense of a right upheld since the time of Milton's *Areopagitica*, for the liberty of unlicensed printing. When the news of the assault and shooting at Alton, Ill., of Rev. Elijah P. Lovejoy, editor of the *St. Louis Observer*, reached Boston, consent was obtained after much petitioning and many appeals from aldermen's decisions to hold a meeting in Faneuil Hall.

The meeting was held one December day in 1837, held in the daytime rather than at night to avoid a mob. The meeting was addressed by Channing and others. Resolutions were offered denouncing Lovejoy's murder. James Austin, the able and popular attorney general of Massachusetts, delivered a bitter attack on the previous speakers and he seemed to be carrying his audience with him. Austin closed amidst loud cheering, when Phillips, coming forward from the audience, leaped upon the platform and burst forth in the language of the press with "a torrent of eloquence of irresistible force which was cheered from every quarter of the hall." "We have met," he said, "for the freest discussion of these resolutions and the events that give rise to them." Now amidst the cry of "put the question" from Austin's followers, others shouted "Hear him," "No gagging." In one sentence Phillips had at once challenged attention by his appeal to fair play. He then continued, although often interrupted, in a speech almost faultless in style, and pronounced by Curtis as comparable with Henry's Williamsburg speech or Lincoln's Gettysburg oration. "I hope I shall be permitted to express my surprise at the sentiments of the last speaker—surprise not only at such sentiments from such a man but at the applause they have received within these walls." Phillips referred to the comparison that had been made between the events of the revolution and the tragedy at Alton, and closed this part of his address with those well-known and now immortal sentences: "Sir, when I heard the gentleman lay down principles which place the murderers of Alton side by side with Otis and Hancock, with Quincy and Adams, I thought those pictured lips would have broken into voice to rebuke the recreant American, the slanderer of the dead. Sir, for the sentiments he has uttered, on soil consecrated by the prayers of Puritans and the blood of patriots, the earth should have yawned and swallowed him up." On the freedom of the press he said: "Is the assertion of such freedom before the age? So much before the age as to leave one no right because it displeases the community? Who invented this libel on his country? It is this very thing which entitles Lovejoy to greater praise; the

disputed right which provoked the Revolution—taxation without representation—is far beneath that for which he died.” His hearers hanging on every word now broke into a tumult. There was a clamor of protest. It is one of the many instances in Phillips’s method whereby he wrought his hearers to a tremendous pitch, to quell them “with one of his irresistible climaxes.” In a few quiet sentences, when order reigned again, he turned prejudice to favor. “One word, gentlemen. As much as thought is better than money, so much is the cause in which Lovejoy died nobler than a mere question of taxes. James Otis thundered in this hall when the king did but touch his pocket. Imagine, if you can, his indignant eloquence had England offered to put a gag upon his lips.” From this point onward Phillips carried his audience with him. The effect of the speech was magical. It was apparently unpremeditated. It was dramatical without any such intention. At a critical moment, when it was a question whether the atrocious mob speech of Austin’s or whether the plea for the liberty of speech and the press should prevail, the eloquence of this young aristocrat of twenty-six years secured the victory.

Phillips’s audience that day in Faneuil Hall was characteristic of his audiences for the next twenty-five years, the only difference was the degree of the intensity of the opposition. Only a very small percentage of the people of the North were at this time even anti-slavery in sentiment. It is safe to say that at the breaking out of the Civil War the number in the North who stood for emancipation composed a small minority. This must always be borne in mind when estimating the difficulties and the labors of the abolitionists.

In 1838, on the question of the constitutionality of annexing Texas, Phillips made a plea before a committee of the Massachusetts Legislature. His argument showed his familiarity with the nature of the Constitution, of constitutional Law, of legislative acts and of the opinions of jurists and statesmen. He argued for one hour in a speech which displayed his legal talents and showed his ability to, and the value of, quoting authority.

It took conservative Boston ten years before public opinion had advanced to the point of permitting Faneuil Hall to be opened for an abolition meeting. Its doors were at last unbarred in 1839 when Wendell Phillips offered the resolution,

"Resolved, That whether the members of Congress sustain freedom of speech in the capitol or not, Massachusetts and Faneuil Hall are never gagged."

"We have done two things," he said; "we have opened these doors and we have pictured that man's features (John Quincy Adams's) on these walls, not to honor him as the ex-President of the United States, but as the man who alone has dared, on the floor of Congress, to maintain that slaves have a right to petition. It is fitting that we should meet here. We have united to finish what our forefathers left unfinished when they declared that all men are born free and equal." Farther on in this speech he referred to Rome protecting her citizens in whatever remote or barbarous land they might be. "Not so with Massachusetts," he said; "her citizens are seized in sister states and sold into slavery; a senator of the United States threatens wholesale hanging, while her Webster is dumb and her Fletcher is gagged." Webster had held the constitution to be a compact between the states and the North must accept it with the unfortunate permission of slavery. Phillips's reply was: "How did Massachusetts understand the compact? That we were to be free under the Union as we were free before." Then alluding to a meeting in Faneuil Hall which was seeking to prevent the dissolution of the Union, Phillips said: "Love the Union as we may, and cherish it as we do, equally with the loudest of our opposers—we say, perish the Union if we must abandon the slave. God has so bound us to the slave that we cannot abandon him. We are embarked on the same vessel and must be saved or perish together. So let it be our firm determination this day that we will live or die with the slave."

The history of the right of petition to Congress is interesting and the victory finally won by the abolition agitators was a most important one for their cause. Professor Burgess, of Columbia University, says: "It would not be extravagant to

say that the whole course of the internal history of the United States from 1836 to 1861, was more largely determined by the struggle in Congress over the abolition petitions and the use of the mails for the abolition literature than anything else."

Phillips's position now becomes clearer upon two points: He has given his answer to the question "how far legal argument is valid when it contravenes human feelings." The right of the slave to freedom was to Phillips's way of thinking not a question for argument. His position is illustrated by a legal anecdote quoted by several biographers and ascribed to Judge Harrington of Vermont, who told the attorney for a Southern owner who was seeking to recover a fugitive slave that his "evidence of ownership was insufficient." "What evidence does your honor require?" "Nothing less than a bill of sale from God Almighty." Phillips reached the other position gradually, but he has now spoken with no uncertain voice. If necessary he was ready to pull down those two pillars on which the very existence of the nation rested, the constitution and the Union.

Constitutionalism and unionism touch the most fundamental questions in the political history of our country. The constitution, pronounced by Gladstone the most wonderful work ever struck off by the brain of man and called by an eminent living statesman a bundle of compromises all needful, left unsettled the question of the right of a state peaceably to withdraw. From the beginning of our government differences in political parties rested on their attitude to the constitution. Many acts of Congress turned upon the meaning and construction put upon it. Up to the time of the Civil War there were perhaps more instances in the North than in the South of threatened secession. The first clash over the constitution arose upon the question of the annexation of Texas. Dr. Channing, in a letter to Henry Clay, referring to the duty of a free state in case of the annexation of Texas, writes: "We regard the act as the dissolution of the union. The essential conditions of the national compact are violated." Massachusetts later threatened to secede. On the other hand, and in contrast to this, George Ticknor Curtis says, in his *Life of Buchanan*: "It should in

justice be remembered that the effort at that period to enlarge the area of slavery was an effort on the part of the South, dictated by a desire to remain in the Union, and not to accept the issue of an inherited incompatibility of a political union between slave-holding and non-slaveholding states."

In spite of the attitude of some states in the North toward secession, nothing contributed to the development of that sentiment so fully as the speech of Daniel Webster in his reply to Hayne in 1830. Hayne's argument on the premise that the constitution was a compact between the states seemed unanswerable, but Webster took the ground that the constitution was not a compact but the formation of a government. The impression created by this speech was profound and formed the foundation of a new school of political thought. Let it be remembered that an important factor in the growth of the Union sentiment in the North was the fact that immigrants to America practically all settled there. Having come to a land of liberty, which meant one nation and one flag, they looked upon secession as rebellion and held the doctrine of States' Rights as a doctrine of folly.

The abolition movement in the North, active now for a score of years without any very positive results, did however arouse feeling, and even though sympathy with the abolitionists was disavowed, there was coming to be a stronger dislike for slavery and a positive attitude against its existence. In the South conditions were different. Slavery had kept out immigration. While there, too, there was much Union sentiment, the South maintained what she claimed as her right, that is, the policy of the country to leave southern territory open to slavery. This was the cause of the controversy over the admission of Texas, later of Mexico, of California and of Kansas and Nebraska.

The anti-slavery sentiment was now arraying the two sections, North and South, against each other. To sum up conditions at this time Woodrow Wilson says: "The North was beginning to insist upon a national government; the South was continuing to insist upon the original understanding of the Constitution; that was all." "And in those attitudes," says

Herbert, "the two sections stood in 1860-61, one upon the modern theory of an indestructible union; the other upon the old idea that states had a right to secede from the Union."

During the first five years of Phillips's advocacy of the anti-slavery cause his arguments had been confined principally to the right of petition, freedom of the press and unhampered discussion. His speeches are now to show his attitude to the constitution and to unionism, and reference is made first to the Latimer Fugitive Slave case. This slave Latimer, having made his escape from his owners, was detected, arrested and ordered to be returned. In the effort made to prevent his return the judge ruled that the slave was property and that the plain intent of Sec. 2, Art. IV, of the Constitution must be carried out. He could not, therefore, reverse his decision. This case struck at the very foundation of Phillips's faith. To his mind the people of Massachusetts were being impelled by a piece of parchment to commit a great wrong and injustice. A paragraph gives us an example of Phillips's method, of the difficulties under which he spoke and of his position on the constitution.

"Fellow-citizens, I will ask your attention but a single moment. I wish only to bear testimony in favor of liberty. (Uproar.) No generous man will try to drown my voice when I plead the cause of one not allowed to speak for himself. . . . The swarming thousands before me, the creators of public sentiment, bolt and bar that poor man's dungeon tonight. (Great uproar.) I know I am addressing the white slaves of the North. (Hisses and shouts.) Shake your chains; you have not the courage to break them. This old hall cannot rock as it used to with the spirit of liberty. It is chained down by the iron links of the United States constitution. (Hisses and uproar.) Many of you, I doubt not, regret to have this man given up, but you cannot help it. There stands the bloody clause in the constitution—you cannot fret the seal off the bond. The fault is in allowing such a constitution to live an hour. When I look upon these crowded thousands and see them trample on their consciences and the rights of their fellowmen at the bidding of

a piece of parchment, I say my curse be on the constitution of these United States. (Hisses and shouts.) Shall our taxes pay men to hunt slaves? Shall we build jails to keep them? (Uproar.) If a southerner comes here to get his lost horse he must prove title before a jury of twelve men. If he comes to catch a slave, he need only to prove title to any justice of the peace whom he can make his accomplice. I record here my testimony against this pollution of our native city. The man in the free state who helps hunt slaves is no better than a bloodhound. The attorney is baser still. But any judge who should grant a certificate would be the basest of all:

"And in the lowest deep, a lower deep,
Still threatening to devour him, opens wide."

The interruptions indicate the fragmentary way in which the speech was delivered. It was the second time Phillips encountered the mob element, and he won again.

Disunion was now coming to be talked about by Phillips and the more radical abolitionists. They held slavery to be an evil that must be uprooted, a wrong that must be righted, and they saw two ways of doing it. Either the pro-slavery constitution must be amended, or if the South would refuse to do this the North must peaceably withdraw in order to exempt themselves from responsibility and complicity in slaveholding. The latter method, they felt, was their only way of escape. So long as the constitution stood, the North was powerless to touch slavery in the South. Phillips's biographer, Sears, raises the question as to whether slavery would ever have been abolished had not the South, by seceding, made it possible for Lincoln to reach slavery in those states, and for Congress to make emancipation universal. In Sears's own words, "In the final event the North avoided separation and the abolitionists saw their desires accomplished in an unlooked-for way."

Phillips was thoroughly sincere. He felt that a man's life must square with his convictions. He closed up his law office through scruples with an attorney's compliance with the con-

stitution. Later he gave up voting until the civic system could free itself from the taint of injustice.

By the year 1840 the anti-slavery movement had reached the political stage and with it came a division of the abolition forces into two organizations known as the old and the new. The former believed in education and moral suasion; the latter in allying with it the Church and the world, and in the endeavor to obtain their end through a political party. Phillips belonged to the old organization. To the question "Why not marshall yourselves into a political party?" Phillips replied "that radical reform could never be carried on by political organizations since the politician must concede half his principles to carry forward the other half, and is always looking back over his shoulder to see how many are following." He saw the political parties between the forties and fifties as Professor Smith characterized them as being "led by keen politicians whose chief function was to carry elections and fill offices." "The reformer's object," Phillips said, "is duty, not success. He can wait."

The year 1850 is usually considered the end of the first period of the anti-slavery movement. The result of their agitation was evidenced in the fact that eleven of the states had on their statute books laws which were intended to help slaves to escape from their masters. Calhoun summed up the political situation in the North and forecast the future in a speech in 1847: "(1) Abolitionists—about 5 per cent. of the voting population. (2) Sober people, willing to see slavery abolished, but not by overthrowing the Constitution—70 per cent. (3) Highly respectable people who sympathize with the South—5 per cent. The remainder—20 per cent.—who care less for principles than for spoils. Yet the abolitionists hold the balance of power from the nearly equal division of Democrats and Whigs. Hence the danger to the South should any party unite with the abolitionists." Both political parties doubtless fully realized this situation.

To bring about a second era of good feeling, to satisfy the

South and to preserve the Union spirit in the North there was enacted, through the efforts largely of the two great leaders, Webster and Clay, the famous Compromise Measure of 1850. While this bill was pending Webster pronounced in the Senate his great 7th of March speech. It was his answer to the country as to how Union was to be preserved.

To a man like Phillips, a man who hated all things evil, who hated the idea of striking a bargain with conscience, to such a man a compromise was abhorrent. In two things particularly Webster had offended. He had supported the Wilmot proviso, and his aversion to slavery was well known. He was now regarded as a deserter to the slavery cause. In regard to the Fugitive Slave Law and the complaint of the South to the personal liberty laws of the northern states, Webster said: "In that respect the South, in my judgment, is right and the North is wrong."

Phillips arraigned Webster most severely. In one speech, referring to the statement of Webster's in which Webster likened his course to the desertion of Sam Adams to the British or a defection like John Hancock, Phillips argued: "Grant his premise; it is the cause of liberty on the one hand and of tyranny on the other. He gave aid and comfort to the enemy and tended to make slavery perpetual. His present doctrine is inconsistent to his past; is apostate to his pledges. Surrendering one of his constituents to the terms of Mason's bill, he surrenders him to slavery. The defender of the constitution forgets its guaranty of trial by jury, which southerners tell us is inconsistent with slavery. He accuses northern legislators and apologizes for southern; and changes his speech for readers in each section."

This speech of Phillips's was in keeping with one of Mr. Seward's who, riding on the tide of the anti-slavery movement, followed Webster's speech in the Senate four days later. Quoting the Fugitive Slave provision of the Federal Constitution, he said: "The law of nations disavows such compacts; the law of nature written in the hearts and consciences of free men

repudiates them." The people of the North, instead of following Webster, followed the doctrine of the law higher than the constitution. Herbert reminds us again of another anomaly of history, for "when ten years later, it appeared to them that the whole North had given its adhesion to the Higher Law doctrine, the people of eleven Southern States seceded, while the North put over themselves in very substance the constitution that Seward had flouted and Webster had pleaded for in vain."

Two things in Phillips's mind stood as obstacles to the abolition movement. One was the compromising attitude of parties, for which reason he assailed Webster; the other was commercial interests, that is southern trade. Phillips, in a speech in 1852, attacks this. A paragraph shows his merciless manner: "Property has been regarded as the great element the government is to stand by and protect—the mills of Lawrence, the ships of Boston, the mines of Pennsylvania. If placing one dollar on top of another be the chief end of man, be it so. Dr. Johnson said of a certain Scotchman that if he saw a dollar on the other side of hell he would make a spring for it at the risk of falling in. The Yankee character seems too near that. Massachusetts representatives have always looked to the southern cross, not to the north star. They never looked to the state that sent them. They are beginning to look toward Faneuil Hall; not like Webster, to the October sun of the Old Dominion. In this hall has been the rebuke of the city government and of the commercial interest whose servant it stooped to be."

The early years of the fifties looked dark for the abolitionists. Phillips's faith never faltered. "I believe," he said, "in the twenty million, not that live now, necessarily, to arrange this question which present politicians have sought to keep out of sight. When the nation sees that the interests of a class only are subserved by human bondage, then the change will come. It is a great thing to keep alive a protest. The anti-slavery cause does not seem to move; like the shadow on

the dial you cannot see it move, but it gets to 12 o'clock at last."

In these dark days before the dawn the abolitionists were stirring up agitation over the Fugitive Slave Law. Numerous arrests were made. Most forcibly and eloquently did Phillips advocate the repeal of the law. One case in 1855 gave him another opportunity to display his legal knowledge. This was his speech supporting a petition for the removal of Judge Loring who, Phillips held, was responsible for the return of one Anthony Burns. On the third day Phillips made a speech of an hour's length. The most pro-slavery paper of Boston said of Phillips: "Never were the splendid abilities of this most accomplished and able fanatic more amply displayed than on this occasion. Sentiments most repugnant to the feelings of every patriot were absolutely applauded when clothed in the graceful and magnificent diction of this anti-slavery Cicero. The gross injustice of the matter and the exquisite felicity of the manner, topics such as the dissolution of the Union and destruction of the constitution were dwelt upon with such unparalleled force and beauty that disapprobation of the subject was lost and overwhelmed in admiration of the man. Great has been the change since 1850. It is insufficient to explain the favor with which this abolition oration was received by an audience such as is seldom collected even in this city."

In the eloquent peroration to this address Phillips has this striking sentence: "Judge Story and Professor Greenleaf used to point to the Bible and say to the students 'Gentlemen, that book is the origin of all law and its foundation. When you find a law which conflicts with that it is no law.'"

Agitation over the Latimer slave case secured the passage by the Massachusetts legislature of a personal liberty bill which matched the old Fugitive Slave Law. Now through agitation of the Loring case a bill was passed which Phillips led in presenting and supporting, which matched the Compromise Bill of 1850, and defied the South and the constitution.

Delenda est Carthago had been from the beginning the

battlecry of the abolitionists. It was a destructive policy they advocated and therefore unpopular both North and South. How was slavery to be destroyed? The uprising in the North in '61, as we know, was not for the purpose of destroying slavery. Had Phillips and the abolitionists been able to show a constructive plan the battle would have been half won. To have displayed such wisdom, however, would have been to possess sagacity greater than the nation showed during the fifty years of vacillation on reconstruction.

Only a few years before the outbreak of war Phillips was outlining three possible ways of obtaining emancipation. First, an uprising of slaves might inaugurate some method of emancipation. Second, the attitude of the South in Kansas might arouse the Northwest. Third, by educating the North to abolish slavery at all hazards, the Constitution might be defied and slavery abolished by a law violating all compromises and judicial decisions. By the last-named method this man of faith and vision, student for more than twenty years of this difficult problem, came very close to the way in which it was finally settled. For by a law of the Union compromises were repealed and judicial decisions reversed.

It was brought to pass more quickly than Phillips could foresee and by conditions which were due to the policy and action of the political parties. Through concessions and compromises both sections of the country during the forties were conciliated so that neither section was made to feel that their interests were endangered. This conciliatory policy was accomplished through the influence of the great leaders of both parties. To continue such a policy there naturally must be the same strong leadership. Now when those greatest of leaders, Webster and Clay, passed off the stage there remained no successors of equal power and influence. This lack of leadership soon resulted in a great political blunder by the party in power in 1854, the passage of the Kansas and Nebraska Bill and the repeal, thereby, of the Missouri Compromise. It at once aroused the North. It led to the formation of a new po-

litical party. The Kansas and Nebraska Bill served as a rallying cry for all anti-slavery voters. To quote the historian Rhodes: "The moral agitation had accomplished its work. The cause of anti-slavery was to be consigned to a political party that brought to a successful conclusion the movement begun by the moral sentiment of the community."

Phillips saw, in the Republican party, a ray of hope. He had not countenanced the Liberty party nor the Free-soil party, but here was a party that was strictly sectional. It was hardly to be regarded as an anti-slavery party. It was surely not an abolition party. It had not risen to that. The party advocated nothing beyond the restriction of slavery to the territory already occupied. It offered possibilities and had its value. The discussion it aroused in the political canvass, Phillips maintained, was worth a hundredfold more than the men it put into power.

President Buchanan in his inaugural address, raising the question of the prohibition of slavery, held it to be a matter of little practical importance, a judicial question belonging to the Supreme Court, the decision of which, in a few days, would settle the question finally. The decision of that court, two days after Buchanan's inaugural, announced that Congress had no power to prohibit slavery in any territory, and that the only authority touching slavery, conferred upon Congress by the constitution was "the power coupled with the duty of guarding and protecting the owner in his rights." Chief Justice Taney, in assigning reasons for the decision, concluded that the negro was "so far inferior that they had no rights which the white man was bound to respect." The slavery question, contrary to Buchanan's prediction, became a momentous question, and the decision which was to settle it threw the country into a great political controversy.

Phillips discussed the decision before the New England society. One paragraph shows his method and his position. "When the Supreme Court lays down a Dred Scott decision on the anvil of the American heart, we want an energy and a

fixedness of purpose in that heart which shall shape it into a tool that will pierce the very heart of the Union. In 1789 the government was launched with the whole territory free. At that same moment the devil hovered over Charleston and dropped a few cotton seeds into the soil. Presto! Sixty years and the cotton seeds have annihilated the constitution, the Revolution and everything else, and we are nothing but a cotton bag to-day. A generation rolled away to 1819, and another struggle, and our fathers yielded up half the territory for slavery, half for freedom. Another struggle in 1852—the whole territory for slavery! That is the history of the Union. The South had not hardened into despotism twenty years ago—was not certain of victory. To-day the triumph of slave power is written on the forehead of the government! And that is why the necessity of the hour is revolution. There is the law, made by the Supreme Court, and the North bows to this final interpreter of the constitution. There is no course between submitting and rebellion but to say to the people 'You must be ready for Revolution.' When they are ready, then you are ready for the first attempt to carry that decision into effect by refusing to submit to it. Convince Massachusetts men that it is not law to which they are bowing—that it is despotism, and they will not submit. Rebellion!—It is epidemic here. Hancock caught the disease and inoculated us all. Remove the state from pro-slavery influences and you will see her true character."

Wendell Phillips unwearingly and incessantly insisted that until slavery was abolished there could be neither "peace, security or national righteousness." He protested against the Mexican War because he thought it a device to extend slavery, against the Kansas and Nebraska Bill, against the assault on Sumner, against the Dred Scott decision, and now against the trial and hanging of John Brown. It is said that when the news of the hanging reached France, Victor Hugo exclaimed: "That ends slavery in America." While this act of Brown was condemned by the South and by a large part of the North,

Phillips saw in it the handwriting on the wall. He addressed the public on several occasions on the Brown raid. The theme of one address was "that education is the insurrection of ideas toward the absolute essence of truth and right which lives in the sight of God. The natural result of the starting of ideas is like people who get half awakened and use the first weapon that lies at hand. The element that John Brown has introduced into American politics makes them crystallize into right and wrong and marshall themselves on one side or the other."

The whole speech was received with much favor and aroused the South, who were now beginning to feel that the conservative North was being dominated by the abolitionists. Phillips was charged with inciting insurrection. Always ready to seize an opportunity, he replied to the charge: "Men say that he should have remembered that lead is wasted in bullets, and is much better made into types. Well, John Brown fired one gun and has had the use of the press to repeat its echoes for a fortnight." The Brown raid was condemned because it was not worth the sacrifice. To this Phillips replied by referring to those few and feeble farmers who flung themselves against the embattled ranks at Lexington, against an empire till then thought irresistible. "It was the beginning of the end. Now and then some sublime madman strikes the hour of the centuries—and posterity wonders at the blindness which could not see in it the very hand of God himself."

Whatever may be the final verdict of history on the John Brown raid, and judgments to-day differ, Phillips saw the significance of this wild venture and turned it to account.

On the day following, Lincoln's election, Phillips used this opening sentence in his address: "If the telegraph speaks the truth, for the first time in our history the slave has chosen the president of the United States." This entire speech was hopeful and ungrudging. He did not feel, however, that the party which Lincoln represented had reached his standard, for Phillips was always twenty years in advance of the times. It was advocating non-extension instead of abolition. During the

stormy days following Lincoln's election Phillips made many speeches. One on the question "How can American Slavery be Abolished," he attempted to deliver in Tremont Temple. The meeting was stampeded by a mob and for three and a half hours pandemonium reigned supreme. The sober element had to adjourn to a church. In a speech on "Mobs and Education" he characterized this recent mob as "made up of young rogues, society snobs, rotten before they are half ripe." At no time in Phillips's career as a public speaker was the mob spirit so violent. While the abolition movement in the North at this time was moving forward, this fierceness of the mob is doubtless rightly explained by Sears as the wrath of commercialism over the impending loss of Southern trade.

Phillips was still advocating peaceful methods. He never seemed to have committed himself positively to the doctrine of non-resistance as did Garrison. He hoped to attain the end through the efficacy of ideas and ideals which he presented without fear or apprehension. When the war came on he expressed his regret that a single gun should be fired. He never, however, veered from his course toward emancipation. His efforts always were made for the purpose of creating right sentiment, and now before the people were half convinced or converted for abolition, war for the defense of the Union had come. His only change was to accept the arbitrament of war for persuasive methods.

Even before war began, with the beginning of secession, Phillips must have still hoped for a peaceful solution. In a speech in January, '61, on the "Lessons of the Hour," he observed that we reckon years as minutes, that the clock of the century was striking twelve and signs of dissolution were patent at home and abroad. "The Lord reigneth," he exclaimed, "let the earth rejoice. The chain which has held the slave system since 1787 is parted. Who dreamed that success would come so soon? Before the Union was formed nine out of ten were proud to be called abolitionists, and Washington and Jefferson uttered anti-slavery opinions for which

they would be mobbed to-day in every great city of the North. The best way to get rid of this evil is not by the slow progress of government patronage which the South has controlled for sixty years, but to let all connection with it be severed immediately and it will die for lack of Northern support."

This was Phillips's view of settling the matter, as good a method, perhaps, as any proposed. Nor had there been a satisfactory solution offered. Lincoln had said in 1858: "When southern people tell us they are no more responsible for slavery than we are, I acknowledge the fact. When it is said that the institution exists and that it is very difficult to get rid of it in any satisfactory way, I can understand and appreciate the saying. I surely do not blame them for not doing what I would not know how to do myself."

Phillips's criticism of the Republican party because it did not declare an intention to attack slavery, was to Phillips's way of thinking justified by Lincoln's inaugural wherein the president declared that "he had no purpose, directly or indirectly, to interfere with the institution of slavery in the states where it existed." Only one month before the Emancipation Proclamation was announced Lincoln wrote in a reply to an open letter of Greeley's: "If I could save it (the Union) by freeing all the slaves, I would do it. And if I could save it by freeing some and leaving others alone, I would also do that. I shall adopt new views so fast as they shall appear true views."

Today we acknowledge Lincoln's wisdom in delaying emancipation. The abolitionists, however, were restive and impatient. Phillips's voice was heard many times during the first years of the war. He was still fearless in his criticism, but he had modified his tone. There was little bitterness. He oftentimes scored the administration for its conduct of the war and its tardiness in proclaiming the freedom of the slaves. He felt that the administration was lagging behind the people. Phillips fully believed that emancipation would come. The

heart of the people was set on it. The Republican party will be forced on to abolition.

On the 22d of September, 1862, Phillips saw the consummation of his many years of labor realized when the President proclaimed freedom of all slaves in all states which should be in rebellion on the first of January. His dream of twenty-six years had come true. His unfaltering faith in the people was confirmed. The multitude had moved to Mahomet.

To many of Phillips's co-workers the Emancipation Proclamation marked the end of their labors. They were ready to discontinue their societies and their periodicals. Not so with Phillips. He believed that there must be continued vigilance and work to secure real freedom for the blacks. It may be set aside by the next administration. "The Proclamation," he said, "does not annihilate the system. In the gospel the devils came back to the swept and garnished chambers."

Phillips was now addressing large and enthusiastic audiences. No longer the despised abolitionist, he was regarded as a national man, a man above political creed and party. The question was being asked: "What can be done with four million people enslaved for eight generations?" During the abolition agitation Frederick Douglass, speaking from the same platform with Phillips, bore evidence to the attainment to which a black could reach. Phillips, to answer this question, and to show the possible attainments of the best example of the African race, began to repeat his lecture on "Toussaint L'Ouverture," being "a biography and an argument" in which he made a comparison between the negro and the Anglo-Saxon. The argument cannot be analyzed here. The peroration gives a comparative estimate of L'Ouverture and presents one of the finest examples of Phillips's rhetorical art. "I would call him Napoleon, but Napoleon made his way to empire over broken oaths and through a sea of blood. This man never broke his word. . . . I would call him Cromwell, but Cromwell was only a soldier, and the state he founded went down with him into his grave. I would call him Washington, but

the great Virginian held slaves. This man risked his empire rather than permit the slave trade in the humblest village of his dominions. You think me a fanatic tonight, for you read history not with your eyes but with your prejudices. But fifty years hence, when Truth gets a hearing, the muse of history will put Phoicion for the Greek and Brutus for the Roman, Hampden for England, Fayette for France, choose Washington for the bright consummate flower of our earlier civilization and John Brown for our noonday; then dipping her pen in the sunlight, will write in the clear blue, above them all, the name of the soldier, the statesman, the martyr—Toussaint l'Ouverture."

Phillips's biographer, Sears, who heard Phillips many times says: "This address has never been surpassed by anything which the writer has had the fortune to hear. It was a vision of lofty inspiration under masterly control. The assembled throng was powerless except to thunder its applause."

There can be no more fitting conclusion to quotations from Phillips's speeches than his beautiful tribute to Abraham Lincoln. In this eulogy he does not recant criticism of Lincoln's early conduct of the war and of his tardiness in declaring emancipation. Phillips knew Lincoln well. He had been in conference with him in Washington many times. He shows that he can appreciate virtues in others for which he, himself, might not be distinguished.

"The martyr sleeps in the blessings of the poor whose fetters God commissioned him to break, and he has sealed the triumph of the cause he loved with his own blood. Who among the living may not envy him? leaving a name immortal in the sturdy pride of one race and the undying gratitude of another, withdrawn at the moment when his star touched the zenith and the nation needed a sterner hand for the work God gives it to do. . . . With prejudices hanging about him, he groped his way very slowly and sometimes reluctantly forward; let us remember how patient he was of contradiction, how little obstinate in opinion, often forgetting justice in mercy. Coming time will

put him in that galaxy of Americans which makes our history the day-star of the nations, with a more loving claim on our gratitude than those who are not called upon to die for their cause."

Such brief extracts from Phillips's speeches have been given as show his attitude on the paramount issues. They are only a few from the two large volumes of his speeches and addresses. We have passed over such orations as the one on "Daniel O'Connell," pronounced "the most classic short one in the English language," "On Idols," "Harper's Ferry," "Lincoln's Election," "Disunion," "War for the Union," and his two masterful Phi Beta Kappa orations.

As agent of the Massachusetts Anti-Slavery Society he lectured here and there, organized clubs and societies and issued occasionally letters and pamphlets. In schoolhouses, in public halls and in churches he would speak wherever he could get a few men together to hear his message. He was in great demand as a lecturer but he was always ready to substitute an abolition speech, free of any charge, for one of his paid lectures. He made numerous lecture tours outside of his own state, speaking frequently three times in one day. Delivering hundreds of speeches in a single year, many of them printed entirely by the press of the day, yet such was his versatility and power of adapting the subject to the occasion that he always made every effort seem fresh and new. Always and everywhere with impassioned zeal he was urging his hearers to agitate, to discuss, to read, to petition, and when public conscience should be fully aroused, to vote.

Phillips, like most great orators, was richly endowed by nature. His biographer Sears describes him as a tall, well-proportioned man, with broad shoulders and deep chest, a head of classic mould and the bearing of an accomplished gentleman. He possessed a voice of no great range or volume, a rich baritone, distinguished by its pure and vibratory resonance. He spoke in such a simple, sincere, unaffected manner, in a tone almost conversational, and his few gestures were in

such perfect harmony with the thought, so that neither voice or gesture ever wearied his hearers. Aided by such physical gifts, his compelling power lay in the force of his ideas and his simple, direct language. He spoke to five thousand as he spoke to one. Cool, calm and collected, he stood before the most turbulent crowds, and by the charm of his presence and the power of his message subdued and won them. Sometimes in the street, no longer under the spell of that magnetic presence, two score men were needed to protect Phillips from the violence of the mob. "Such triumphs," says Sears, "belong to few speakers in the twenty-five centuries of recorded eloquence. Many men have won applause from concurrent hearers and some from divided houses, as Webster, for instance, in his reply to Hayne; but only one American orator in our history has been able to master hostile assemblies year after year in one state after another until the tide of opposition ebbed. It is one thing to ride with a storm and upon it; another to stem and quell it."

The substance of Phillips's speeches are in marked contrast to his manner of delivery. The movement is constant. His speeches abound in sparkling epigram, laughing anecdote, vivid description, thrilling appeal, apt quotation and powerful invective. So striking is the difference between the matter and the manner of his speeches that one has been compared to Vesuvius in eruption, the other to a haleyon summer landscape. He at once angered his enemies, yet fascinated them by his manner, so that a hostile editor called him "an infernal machine set to music."

Such fragments of his speeches as have been quoted serve to illustrate something of Phillips's rhetorical style. Whole speeches must be read and analyzed to understand his constructive ability. In the exordium, while he knew how to, and sometimes did, conciliate an audience at the start, he oftentimes violated rhetorical precept and provoked opposition, especially if he felt sure of their final agreement with him.

Phillips's argument, whether the discourse be classed as lec-

ture or address, was always pervaded with the quality of instruction. Although seldom writing his speeches, they were carefully worked out, paragraph and sentence structure well arranged and the logic of the argument in keeping with the discourse whether expository, legal or eulogistic.

In the quality of Phillips's heart lay much of his great power. Character is the secret. He illustrated the truth of Emerson's statement, "There is no eloquence without a man behind it." Phillips never deviated from the loftiest standards of right. Exposed as he was to the assaults of his enemies, nothing was ever found to tarnish the luster of a consistent life. He was the very incarnation of honor, purity and righteousness and in his life exemplified the noblest virtues of the husband, citizen and public benefactor. What zeal! What faith! What courage! Phillips, the patrician by birth, ostracized by his family, deserted by his early friends, accused and hated by his enemies, opposed by the press and pulpit, this scion of a noble house and scholar of no mean attainments, to whom might open the doors to legal and political preferment, this man dared to make himself of no reputation, dared to endure the storm of hate that beat down on him for almost thirty years, dared to endure the hate of outraged commercial greed, dared all this for the sake of a great principle.

In giving a final estimate of Phillips's power and influence as an orator we will let his critics speak. Higginson says: "He was surpassed by Garrison in grave moral logic; by Parker, in the grasp of facts and in merciless sarcasm; by Sumner, in copiousness of illustration; by Douglass, in humor and in pathos—but, after all, in the perfect moulding of the orator he surpassed not merely each of these but all of them combined." The writer in the International Encyclopedia says: "Phillips must be compared among American orators to Everett, Clay and Webster, and his achievement is, perhaps, to be reckoned greater than any of them when it is considered that whereas they represented a strong political organization or powerful conservative opinion he attacked existing prejudices

and institutions." In the eyes of a foreign observer "he (Phillips) was in the opinion of competent critics one of the first orators of the present century and not more remarkable for the finish than for the transparent simplicity of his style which attained its highest effects by the most direct and natural methods." So wrote Professor Bryce, the philosophic student of American institutions.

History has, perhaps, not yet assigned to Phillips his true place. The glory of the abolition of slavery has been bestowed upon men who were only passive instruments in the hands of aroused public opinion. Behind the roar of guns, the march of armies, the maneuver of generals, was a force mightier than that of embattled hosts, the force of moral convictions. While we erect statues and monuments in battlefield and in public square to our military commanders who sacrificed their lives on the altar of their country, let us not forget that greater honor must be bestowed upon a man like Phillips who sacrificed all the years of his life—all that comfort, leisure, peace, culture, study, learning and friendship could afford—in order to make universal the moral sentiments that finally broke the chains of four million slaves. Laying down our pen after this short study the writer feels that those words of Phillips, pronounced by him over the grave of Garrison, most aptly apply to Phillips himself: "Serene, fearless, marvellous man! Mortal with so few shortcomings."

LANCASTER, PA.

III.

SECULARIZING THE CHURCH.

WILLIAM N. APPEL.

I desire to enter a protest against secularizing the Christian Church. That this is being accomplished, and quickly too, there can be no doubt. The process is going on under another name, but the result is the same. Some persons call it socializing the Church. Others say it is merely adapting old-time principles to modern conditions. Under the euphonious expression "Social Service," a propaganda is on foot to commit the Church to many old and new methods of reform from without, and thus divert the Church from the exercise of its normal function, which is to regenerate the heart of man from within.

The sacred edifice heretofore dedicated to the worship of Almighty God has now, with its parish house, its club and other auxiliaries, become the center of secular functions. We now go to Church to hear sermons on the minimum wage, adequate housing of the poor, the regulation of moving pictures and the dance halls, how to vote and the latest vice investigation report. From this center agents and detectives of Law and Order societies make report of nightly investigations; and it is said even ministers of the Gospel keep silent watch during the hours of the night and assist in rounding up inmates from disreputable houses. They appear as prosecutors and witnesses before grand and petit juries in the Quarter Sessions Court. Billiard and pool tables are being installed, dancing classes are organized and all sorts of amusements offered to entice the youth within its sacred precincts. A child returning home from Sunday school recently was asked by its mother the subject of the lesson. It was how to keep the streets clean. Another Sunday, kindness to dumb animals furnished the subject of the lesson, and this

was in a graded Sunday school up to date. A good woman who had suffered greatly with a recent sorrow brought herself to Church longing for some comforting word. She heard a sermon on the Charity Organization Society and the Visiting Nurse.

Far be it from me to discourage rational and innocent amusements. I believe in philanthropic movements and real social service. I do not defend violations of the laws of the land. All these things are wholesome and good, but I protest they are not religion. This, of course, involves a definition of religion and here arises a difference of opinion. The social reformer has been persuading the Church and the ministry to secularize their functions, to leave the field wherein spiritual relief is wont to be administered and soul consolation poured out, to enter the domain of philanthropy, and the field of economic, political and social reform. They are urged to lay down their spiritual and Godgiven weapons, with which to fight the world, the flesh and the devil, and to take on the armament of the law and physical force. This is the trend of the modern Church and is, I contend, a diversion of its true function and usefulness. It is a misuse of the ministry that weakens the vital spiritual power once her chief glory.

By making the Church a so-called social center, with its adjuncts, the entertainment parlor and the kitchen, the bowling alley and billiard table, dancing classes and vice investigations and the like, it is gradually but surely being secularized and cheapened to say the least. We may as well become ethical culturists and embark on a socially organized regeneration of the world through humanitarian and non-religious methods. These have a large efficacy, it is true, for good, but they all lack the divine spark which comes only from religion and the Church.

Are not, after all, these movements of social reform and uplift but the old time effort to purify and regenerate from the outside instead of from within? The teaching of the Christian religion from apostolic days has been to purify the heart first, to build up character from within, to cultivate a righteous spirit. The promise has ever been, if this be done,

all things desirable will follow as the natural fruit follows the planting of the seed.

Upon a re-valuation of the modern Church and its work, it appears as if the layman had captured the ministry and harnessed it to all so-called human and worldly movements, and somehow the Church has failed to infuse and dominate the social order with its divinely given life and spirit.

As we view it the Church by thus allying itself with secular movements is endeavoring to cure the evils of the social life by a species of legalism, striving to purify the sinful nature of man by attacking the outside, forgetting that crimes and violations of law are the external marks only of an inward demoralization and rottenness of the heart. The root of the evil in the world is in the human heart and to redeem the world the inner spiritual nature must be first purified. The crime committed is the fruit of sin in the heart. You may punish the criminal for violating the law, but that does not cure the sinful heart. The Christian minister has to do with sin, not with crime. When, therefore, he allies himself with the officers of the law in arresting criminals he is departing from his proper function and weakening his power and ability to cure the sin in the heart. When he identifies himself with Law and Order societies, with even the ordinary machinery of the law, he enters a foreign field, just as he does when he invades the political and economic field and preaches on how to vote or the minimum wage. He enters fields of action wherein he has neither capacity nor training to serve. All this weakens him and makes him less competent to administer spiritual and religious food.

Let us take a concrete case. A crime has been committed in a community. Assuming the District Attorney and the police force will not do their duty, the local Law and Order Society institutes an investigation and pursuit. Self-constituted and irresponsible agents take the place of legally elected and bonded officers of the law and proceed to hunt the criminal. Such a procedure can have no justification except it assume the

insufficiency of the processes of the law. It is an usurpation of authority. In this hue and cry a minister of the Gospel has felt it his duty to join. Now it seems the unfortunate criminal is a member of this minister's church and in sorrow, remorse and despair he lies in a felon's cell. He needs spiritual and religious consolation. He craves a word of comfort and encouragement in the agony of his sin. In the depths of his sorrow and grief he cries aloud. His spirit is broken and he has a contrite heart. Who ought to minister to this sin-stricken and repentant soul? Alas, his own spiritual guide and adviser was the first man that in the name of the law laid violent hand on him. He preferred to descend from his high office as minister of the Gospel of Jesus Christ to become a common constable.

The moral and religious status of a community is just as high and just as low as the average morals and religion contained in the hearts of the individuals composing the community. The individual must be regenerated and purified first. When the members of society are perfectly righteous there will be no criminal to pursue, no crime to avenge. In a recent publication on Christianity and Politics, written by the Rev. William Cunningham, D.D., Arch-Deacon of Ely, being a remarkable series of lectures delivered in 1914 before Harvard University and now appearing in book form, the learned author reached the conclusion that the "function of religion is to work on the individual and through him on the community and not on the actual policy of the community."

Dr. Cunningham writes not only as one of the best known of English divines, but as an acknowledged authority on economics and sociology. In his historical development of the subject he shows the inevitable failure of the Church whenever it undertook to establish a dominance over secular affairs.

Let it not be understood that reform in many aspects of our social life is undesirable. Philanthropic and humanitarian movements are constantly ameliorating the conditions of life. Statesmen and economists are working out reforms in politics and business. These men are qualified for this par-

ticular work. These are fields of action in which the minister has no place and in which he has not capacity to serve. His field is so much higher, his work so much more important, his efforts productive of so much greater good, that I have no compunction in thus ruling him out of other fields of activity.

A minister who knows his congregation in the inner life of its members and keeps constantly in touch with their spiritual needs, holding himself always ready to give and help, has no time for vice investigations or Law and Order societies. Even committees on housing the poor, ballot reform and a living wage for women must get along without him. It will take all his time and strength if he will do this service to his congregation and others whom he may reach. In furnishing this pure stream of spiritual and religious food to hungry and sorrowing souls he will be doing his whole duty. His contribution and that of his church to the general uplift of the community will be infinitely more efficacious and lasting. When he succeeds in raising the moral and religious life in the hearts of his members he will be wielding an influence for good in the community that will bring the results he now deems so desirable and necessary.

The great danger in secularizing the church is that it will lose its primary and proper function, which is to give spiritual food to the people, to make pure their hearts, to build up righteousness, to make men and women good.

The present stupendous conflict in the world is a challenge to the Christian Church. Our religion is being tested to a degree hitherto not dreamed of. Somehow all the accumulated religious training of the ages proved futile when the real test came. The foundations of our civilization are crumbling and a world chaos seems imminent. What is the cause and what is the cure are questions uppermost in the public mind. The answer that must come from the Church lies not in the field of the law or in the domain of the external and physical paraphernalia of our social life. It lies in the depths of a moral and religious regeneration in the hearts of men. There is no redemption in science, for its greatest efficiency has been cre-

ated to kill. Art has become a beautiful plaything. Even in law there is no saving grace. All the philanthropic, humanitarian, economic, political and social uplift in the world will not redeem a single soul steeped in wickedness and sin. There must be a re-kindling of spiritual, moral and religious life in the hearts of men. If the Church fails to furnish this, if her ministers dissipate and scatter their efforts in all sorts of reforms which at best only affect the outside surface of things, and withhold the precious food from above, then woe betide the peoples of the earth! In this event the divine message will have been a vain and fruitless thing. In selfishness and hatred they will continue to fight their battles like the beasts they are. Civilization will be a thin veneer barely covering the primal passions of savages.

What the outcome will be, no one can foresee. The historian in the distant future will no doubt behold a world movement in the gigantic evolution we cannot see. It may mean a forward plunge of the democratic spirit and an end of such things as Kaisers, Czars, Kings and Emperors. In the last analysis, however, it is far more important to know how it will affect the spiritual development of the peoples of the world. Will they turn heavenward with a chastened and contrite heart or will they revert to the savage state whence they came? This is the test we must apply.

When these wars shall cease and countless human beings lie stricken unto death I predict both among the people and in the Christian Church a return to a religious faith, piety and prayer hitherto unknown. In this the Church and her ministry must lead, not by revivals or hysterical evangelization, neither by so-called philanthropic, political, economic, social or humanitarian reforms. It must lead because it alone can furnish an abundant stream of pure spiritual and religious food. It will not be manna, the husks and shells of things. It will be a divine *afflatus* and it will be poured out upon a stricken world directly from on high. It must perforc come through the Church and her ministers. They dare not be faithless to the trust. And when you, chosen of God for your high office, give

this heavenborn message to the children of men lying prostrate in the agony of despair, you need not be ashamed to say it comes from God. And the people, when they receive it, will not be ashamed to go down on their knees in grateful acknowledgment of these gifts of love and mercy that are divine, not human. And in these dire days that will come to stricken peoples in devastated lands, how small and useless will seem all the efforts now being put forth by the Church in the many human agencies she has adopted and exploited. The crying need will not be social, political, economic or even humanitarian, it will be essentially and vitally spiritual and religious.

One of the amazing things in the development of the modern church has been the great effort to remove from it everything divine. Ministers of the Gospel are willing to preach on every subject under the sun except the Gospel, and when they begrudgingly hand it down they almost tell us it is not divine, but a man-made thing. They have relegated to the brush heap most of the sacred beliefs, such as the miracles, original sin, the vicarious atonement of Jesus Christ, the efficacy of baptism and the Holy Communion, and many of them even deny the validity of their own divine office as ministers of God. They prefer to hold their office from the people not of God. All comes from man, nothing from God. Perhaps this is the reason so many ministers look down on empty pews and complain bitterly that their members do not come to hear the sermons prepared with so much labor. Has it ever occurred to them, I wonder, that they do not come because they do not get the food they hunger for? The world is hungry for a God-made religion, but it has no use for a man-made church. And when the Church becomes secularized to the extent of eliminating God, it becomes a human institution, no better, no worse than many others that have trailed their futile course across the pages of history.

I protest as a layman against the movement which thus tends to secularize the Church. Alas, that this cry of warning should come from a layman! At the time of the world's greatest need for spiritual and religious regeneration the Church seems weakest and least able to furnish the supply of food. While

the modern Church is endeavoring to christianize the social and civil life of the world, I fear the world is rapidly secularizing the Church. It is sapping its best life blood. It is making it a human institution. As a human institution it is a failure. As a divine institution it is all powerful.

I am aware that all I have written is counter to the trend of the Christian Church to-day. Not one clergyman in ten will agree with the views here expressed. They are rather proud of alliances with humanitarian and social agencies and hesitate to offer the divine gifts of the spirit which are at hand. In making this protest I believe I am expressing a very deep-seated fear that is in the breasts of many laymen who love the Church and have its best interests at heart.

LANCASTER, PA.

IV.

THE THEORY OF VALUE IMPLIED BY SCHOPENHAUER'S PESSIMISM.

RAY H. DOTTERER.

In popular language "optimism" and "pessimism" are employed to denote respectively a hopeful or a despairing view of the world. One who is disposed to look on the bright side of things is an optimist, while one who customarily sees their gloomy aspect is a pessimist. In more technical usage, optimism is the theory, most definitely formulated by Leibniz, that this world is "the best of all possible worlds." The term "pessimism" is usually employed somewhat more loosely to designate any theory opposed to optimism.¹

In one curious passage, Schopenhauer tells us that the world could be no worse, if it is to exist at all; the idea seeming to be that if there were any increment of badness, the cosmos would go to pieces. The world would, accordingly, be the worst world which is capable of existing, but not necessarily the worst world that is logically possible. For the most part, however, Schopenhauer does not make any comparison of possible worlds. It is sufficient for him to say that this world is so bad that its non-existence would be better than its existence. Far from agreeing that "whatever is is right," he insists that that which is ought not to be.

One is tempted to account for Schopenhauer's condemnation of the world in a rather summary fashion. The ultimate ground of his pessimism, it might be urged, is the failure of the ac-

¹ See Sully, *Pessimism*, p. 5; also Plümacher, *Der Pessimismus*, p. 4.—The chief source for Schopenhauer's pessimism is, of course, his *magnum opus*, *Die Welt als Wille und Vorstellung* (English translation, by Haldane and Kemp), more particularly the fourth book, on the "Affirmation and Negation of the Will."

tual world to conform to his chosen theory of reality. The ordinary sceptic or agnostic despairs of human reason because he finds himself unable to frame a satisfactory theory of the world. Schopenhauer in the same situation anathematizes the world. He has a sort of religious or æsthetic preference for a timeless, passionless, indivisible reality. Indeed, according to his ultimate theory of value the concepts of unity, apathy and eternity are of supreme worth. In the actual world, however, we find a temporal process, and a multiplicity of individuated competing wills. Consequently, concludes Schopenhauer, the world is evil.

Yet, Schopenhauer himself does not put the case against the world quite so simply; and, at first sight, the ground on which he, at least ostensibly, passes judgment against the world, may seem wholly unrelated to these more remote judgments of value. Whatever we may find reason to say in the sequel about his ultimate theory of values, the proximate principle of Schopenhauer's pessimism is the following: The sum of the pains of the world exceeds the sum of the pleasures; therefore the world ought not to be.

It may be worth while to call attention to a suppressed premise. Even if the sum of the pleasures exceeds that of the pains, the conclusion, that the non-existence of the world would be better than its existence, would not follow, unless we assume that pleasure is good, and not merely that it is a good, but also that it is the only good. Schopenhauer is not an ascetic, if by an ascetic is meant one who prefers pain to pleasure. His reasoning implies that pleasure is good; for the world is condemned because it contains too little pleasure and too much pain.

Now without insisting upon the point, it may be worth while remarking that this assumption, that pleasure is the only good, is not necessarily valid. It is by no means self-evident that the good and the pleasant are equivalent concepts. At any rate many ethical theorists have strenuously maintained that the good need not be described as pleasure or happiness. It will be remembered that even John Stuart Mill, the product and

spokesman of a school of thought which regarded the "greatest happiness of the greatest number" as the ethical end, was constrained by his loyalty to fact and truth to admit a distinction in the quality of different pleasures—a distinction which could not be resolved into a mere difference of quantity. He preferred "Socrates dissatisfied to a pig satisfied." There was a certain dignity in human nature which would impel a right-thinking man, if the alternative were presented to him, to choose to be a denizen of hell with all its torments, rather than to be the god who would send him there. In other words, many minds have recognized values which can not be resolved into pleasure, and it is accordingly not inconceivable that many minds would prefer a world which produces, even at the cost of a surplus of pain over pleasure, certain for them highly desirable human qualities to no world at all.

But I have no desire to press this point. Let us rather discuss the question from Schopenhauer's own point of view. Let us assume, as he does, that a world which ought to be must not produce a surplus of pain.

Schopenhauer's condemnation of the world is based, in part, upon an empirical observation of the transitoriness of life. Here again we must be on our guard against a misconception. If Schopenhauer is—in theory—an ascetic, he, nevertheless, regards life as good. To be sure, life is to be renounced. Suffering, having assumed the form of knowledge, is to be a "quieter" of the will to live. The joys of life are to be shunned, and not its sorrows; yet life, considered in abstraction from its joys and sorrows, is good. In view of death, man is bidden to find consolation, not in the thought that life is evil anyhow, and the sooner it comes to an end the better, but "by turning his eye to the immortal life of nature," and remembering that though he, the individual, ceases to exist, he, as the manifestation of the cosmic Will, lives on. Life in itself is good, otherwise the transitoriness of life could not be made a count in the indictment brought against the world. Life becomes bad for Schopenhauer, in the first place, because it is

uncertain and ends too soon. It is only a constant struggle for existence, with the certainty of losing the battle at last.

But this is not the principal reason for condemning life. Not only is man of few days, but his few days are full of trouble; even if Ponce de Leon's fable fountain should be discovered, or the alchemists' search for the elixir of life finally be crowned with success, so that a man might reasonably hope to live always, life, according to Schopenhauer, would still be not worth living, and the world better non-existent.

This conviction that life, even at its best, is nothing but vanity and vexation of spirit, is justified, according to Schopenhauer, both inductively and deductively, both by an observation of the facts of human and animal life, and by an *a priori* inquiry into the nature of pleasure and pain.

According to the inductive argument, whether we look round about us and observe the sufferings of our fellow-men and of other sentient beings, or whether we consider our own private experience only, the verdict of the impartial spectator must be the same: Pain is the rule, pleasure the exception. The outstanding feature of all sentient life is a fierce and incessant struggle for existence. For the most part the pain of one sentient creature is the condition of the pleasure of another. The whole world-order is well represented by the picture of a beast of prey feeding upon its victim. In this case, says Schopenhauer, the pleasure of the eater is never so great as the pain of the animal that is eaten. And thus, in general, the pleasures of life are purchased at the cost of a far greater amount of pain. When we consider our own experience, even we, who as compared with the sub-human species are more frequently eaters than eaten, the quest of pleasure is bound to end in disappointment. The life of men in their seemingly happiest estate oscillates between need and boredom. At one moment we are tormented by desire, at the next moment, the desire having been satisfied, we are tormented by the lack of any new interest.

Not only do we find by an empirical study of the facts of life that the lot of all sentient creatures is, on the whole, evil

and not good, but an *a priori* inquiry into the nature of pleasure and pain shows that such must be their lot.

The doctrine which makes reasoned pessimism independent of mere observation, and, in point of fact, colors such observations as are made, is the principle of the negativity of pleasure. It is not merely the doctrine that pleasure is known only by contrast with pain; although certain passages seem to imply no more than this. In the light of our experience of adaptation to the usual, this doctrine might be plausibly maintained. Many a thing which was originally pleasant, if long enjoyed, loses its pleasantness and becomes indifferent. But the principle of contrast works both ways. If pleasure can be known only by contrast with pain, then conversely pain can be known only by contrast with pleasure. The result of such a principle would be that the amounts of pleasure and pain in the universe, like those of positive and negative electricity according to the two-fluid theory, would have to be absolutely equal. Schopenhauer's doctrine of the negativity of pleasure means much more than this, however. He holds that pleasure is always preceded by pain, and that pleasure is, accordingly, nothing but the absence of pain, just as darkness is only the absence of light. Reversing in a curious manner the assumption of traditional theodicy, he teaches that pain is the positive and, so to speak, the normal state of all sentient beings. This doctrine rests upon two assumptions, both of which require analysis. These two assumptions, or links in the argumentative chain, are (1) that all pleasure is the satisfaction of desire and (2) that all desire is pain.

It is necessary to inquire into the exact sense in which desire, the common term of these two propositions, is employed. It is especially important to distinguish conscious and unconscious desires. For example, if my digestion is good and meals are not too frequent, I may be hungry for an hour or more before mealtime; yet, if I am busy, I may not be aware of a desire for food, except now and then when my attention wanders for a moment from the work or play in which I am engaged. It may be convenient to say that the desire for food was present

all the while, but that most of the time it was unconscious. But an unconscious desire, if a pain at all, is only an unconscious pain.

Now it would indeed be a pretty question to determine whether a pain of which the alleged sufferer is not aware should be counted when we attempt to calculate the relative amounts of pleasure and pain in the universe. Common sense would suggest that pains and pleasures which are not felt are not pains and pleasures at all. It would then be better to drop the term unconscious entirely. Let it be agreed that there can be no unconscious pain. Then if desire is to be subsumed under the category of pain, there can be no unconscious desire either. Desire must then be defined as a need of which the subject is conscious.

This is, in my judgment, a very important distinction; for the two links in the argument for the negativity of pleasure can both be regarded as valid only so long as this distinction is overlooked. If pleasure is defined in such a way as to make the one proposition true, it is thereby defined in such a way as to make the other proposition false. The second proposition, which affirms that all desire is pain, is true only if desire is taken in the strict sense, that is, in the sense of a need that is consciously attended to. A mere lack existing somewhere in the physical organism, but not felt, can not in any meaningful sense be called a pain. At any rate, as has been remarked, it would not be a conscious pain. And unconscious pains and pleasures, if the terms have any meaning at all, can not be treated as commensurable with pains and pleasures that are actually suffered and enjoyed.

On the other hand, if desire is taken in this narrow sense, the first proposition, namely, that all pleasure is the satisfaction of desire, is simply not true. For if a need of any sort exists pleasure may be produced by supplying it, whether or not the given need has been consciously felt. For example, every one has had unexpected pleasures, and an unexpected pleasure can be called a satisfaction of desire only if the term desire is loosely employed to include all sorts of unconscious wants.

It is therefore not true that pleasure is not always and of necessity merely the absence of pain. The plausibility of the argument for the negativity of pleasure is due solely to an ambiguous use of the term desire. Even on the assumption that desire, or need, in so far as conscious, is always painful, it does not follow that life in general must show a surplus of pain over pleasure.

To approach the problem from a slightly different point of view, the total feeling-tone of a given moment of consciousness is not necessarily unpleasant, because that moment of consciousness includes an unsatisfied desire. Some other desire may be in process of satisfaction, and may determine the total feeling-tone of the moment. That is to say, if we assume that a considerable number of desires can be felt at the same time, and also assume that, while we are completely conscious of one or more of these desires, we may be in varying degrees only dimly aware of the others, it may happen that the desire which is in process of satisfaction occupies the center of the stage for the time-being, and causes the total feeling-tone of the complex of consciousness to be one of pleasure.

Now I should maintain, merely however as a matter of opinion, that this is not a rare happening, but that it is very frequently the case. To revert to an already suggested illustration, for an hour before his customary mealtime, a healthy man may be said to be, in some sense of the word, hungry. There is a physical demand for food. If he has nothing else to think about, he is pretty sure to be consciously hungry; and any one who is able to recall the experiences of childhood knows that waiting for dinner to be served is a rather painful experience. But we are usually so busy with work or play or conversation, that we are only dimly conscious of hunger; or though the physical need of food is a genuine reality, there may be no felt desire at all. Now and then the desire for food may, so to speak, surge up into consciousness, and for the moment, occupy the center of the field, when it undoubtedly becomes a painful feeling; but for the most part it remains unconscious, or only dimly felt. Other desires or needs—the desire for the activity

of mind or body, the desire for human companionship, etc.—are in process of satisfaction, and even while the hungry man waits for his dinner his general feeling-tone may be, and I should say, again as a matter of mere opinion, is rather likely to be, pleasant.

Schopenhauer's argument proceeds as if there could be but one desire or need at a time.² As a matter of fact we are so constituted as to be capable of many simultaneous satisfactions. Bearing in mind this fact of our physical and mental constitution, we might even suggest a rule for the attainment of a maximum of pleasure with a minimum of pain. This rule would be two-fold.

1. Have the greatest possible number of interests, needs or latent desires, of the sort that are reasonably certain of being satisfied rather frequently, and without undue delay.

2. Attend in turn to those that are in process of satisfaction.

For the most part, but of course without thought of following any rule, this is, I am inclined to say, the normal practice of all healthy men, who thereby manage to live lives that are reasonably happy. Indeed, it is not impossible to argue on *a priori* grounds that this *must* be their normal practice; for, in accordance with a well-recognized, though perhaps not *universally* valid, psychological principle, of several competing ideas, the most pleasant—not necessarily, to be sure, the idea of the greatest pleasure, or even of any pleasure at all, but yet the most pleasant idea—will ordinarily get attended to. Consequently, among a number of more or less dimly felt desires, the one which is in process of satisfaction, and which is therefore a pleasant idea, will normally occupy the center of the field of consciousness.

Our examination of Schopenhauer's *a priori* argument for the proposition that the sum of pains exceeds the sum of pleasures, may be briefly resumed as follows:

1. If the term desire is employed so as to include all the needs of mind and body, not all desires are conscious; and unconscious desire can not, in any significant sense, be called pain.

² Cf. Ward, *Pure Sociology*, pp. 102 ff.

Therefore, pleasure as satisfaction of desire, is not always conditioned by antecedent pain, and it is not necessarily true that pleasure, instead of being a positive experience, is a mere zero, or the absence of pain.

2. Of those desires which are conscious, some may be only dimly felt, and the desire or desires which occupy the center of the field of consciousness, may be and frequently, if not most commonly are, in process of satisfaction. Therefore, even if a given moment of consciousness contains many desires, it need not be felt as a moment of pain, since the desire which is being satisfied may determine a total feeling-tone that is pleasurable.

Thus far I have not challenged the assumption that *conscious* desire is pain. And yet do we not frequently speak of joys of hope and pleasures of anticipation, and are there not genuine pleasures arising from the activities of life, of the type which Bain called "pleasures of pursuit"? Hope and pursuit imply conscious desire, that is not yet satisfied, and, on Schopenhauer's hypothesis, ought to be painful. Now the only way in which the assumption that conscious desire is always painful can possibly be reconciled with the undeniable pleasantness of such experiences, is, in each case, to distinguish the desire which is painful from its imagined fulfilment, which is admitted to be pleasurable. But this merely resolves the problem into the case already discussed. To take an instance of the pleasantness of hope, let us suppose that a man has a pleasing expectation of an increase in salary. Then, according to this method of analysis, his feeling-complex includes at least two desires: (1) A desire for more money, and (2) a desire to *imagine* himself to be in possession of the extra money. Now the first desire, as not yet fulfilled, is by hypothesis painful, while the second desire, being in process of fulfilment, is pleasurable. And the second desire may, and we must here assume does, dominate the entire moment of consciousness, and determine a total feeling-tone of pleasure. I do not mean to assert that this is an adequate analysis of the pleasures of hope, or of the actual joys of life. I should rather be inclined to say that these are experiences which are positively pleasing. But if the propo-

sition that all desire is painful is to be maintained at all, such experiences must be analyzed in some such way as this. The attempt to analyze them shows, at any rate, the impossibility of reconciling such actually experienced states of pleasantness with the pessimistic assumption that all pleasure is merely the absence of pain.

The *a priori* argument for the surplus of pain over pleasure accordingly breaks down. If the case is to be argued at all, it must be discussed in terms of observed facts, rather than of *a priori* theory; and the method of observation must, in the nature of the case, be inconclusive. In the first place, everyone's observation is colored by his temperament or preconceived opinion. When we look for pleasures and pains everyone is likely to see what he expects to see. Thus the suggestion made above that by the simple method of attending to the desires that are at the time in process of satisfaction, men as a rule obtain a reasonable amount of happiness, is only a personal opinion, and could have no value as a premise in an argument. In the second place, it is manifestly impossible for any one to know enough about the pains and pleasures of other men and animals, let alone the pains and pleasures of beings on other planets, or of the organisms revealed by the microscope, to decide whether there is more pain than pleasure, or *vice versa*, in the universe.

Our examination of the arguments by which Schopenhauer attempts to justify his condemnation of the world reveals certain tacit or explicit presupposition concerning values. Schopenhauer is unable to recognize any value in activity as such, and he does not share the Romantic admiration for a will that strives merely for the sake of striving. This brings us back to the suggestion thrown out at the beginning of our discussion that Schopenhauer's pessimism is really due, not to any detailed examination of the actual world, or to a logically developed argument, but to the ultimate impossibility of reconciling his theory of reality with the facts.

Whether you say that the coat does not fit the man or that the man does not fit the coat, depends entirely on your point of view. If you are chiefly interested in the man, you will put it

one way; if you are chiefly interested in the coat, you will put it the other way.

There are two ways of approaching the study of the world. You may take the attitude of science and frame hypotheses which enable you to coördinate and include in systems of greater or less extent, as many as possible of the facts that seem to be relevant. From this point of view you have no concern with the ethical, aesthetic, or religious meaning of the facts. It is your business not to care about the human values of a given hypothesis, unless indeed under the term human values we include logical or truth-values. The only concern of the scientist *as scientist* is to find the hypothesis which most satisfactorily coördinates, and, in that sense, interprets, the given facts.

There is, however, an alternative method of viewing the world. You may first of all decide upon certain notions of value. You may frame a theory of what the world ought to be. You may first construct an ideal world, and then compare it with the world that is.

In other words you may demand that the coat shall fit the man, or that the man shall fit the coat; and whether you call the actual world coat or man, will depend upon what manner of person you are.

In condemning the world because of its failure to conform to his theory of the world, Schopenhauer is not at all peculiar. He does, although to be sure in a somewhat more thoroughgoing fashion, just what has been done by all ethical and religious teachers. Indeed, Schopenhauer is an essentially religious thinker. He has certain notions of what the world ought to be, and the world stands condemned because, as a matter of fact, he finds it to be something else. All religious men have been impressed with a similar sense of the valuelessness of the world, or at least of certain features of the world, as it now is; only they have not all found the lack of conformity between the actual world and the ideal world, so great as to lead to the inference that the world as a whole ought not to be.

From this point of view we may look for some sort of Re-

demption of the world, not necessarily, however, for a redemption such as that of which Schopenhauer speaks, which appears to be no more than a ceasing to be; but possibly for a redemption in the sense of an actual improvement of the world in time. Certain features of the world ought not to be. It is possible to admit this, and yet to believe that these will, after a longer or shorter interval of time, cease to be, and that other genuinely desirable features will take their place.

One might admit that the past of the world has been an economy of pain, and, indeed, considered in itself, ought not to have been at all. One might even go further, and admit that the present and the proximate future ought not to be; and yet he might believe, without rational inconsequence, that the future as a whole will be so much better than the past, that he could rationally will its existence. It is evident, moreover, that as practical men asking the question, *Is life worth living?* the past has no place in our survey. Whether or not the past "ought not to have been," it has already been. We can not change it. We are not responsible for it. Our concern is with the world only so far as we can hope to be a part of it. Our world, the world which we evaluate as being worthy of existence, is the future, or more accurately, the future plus the present and the recent past. If, therefore, the future is good, then from our point of view the world is good.

For Schopenhauer such a view is precluded by his theory of the time process.³ He is unsparing in his condemnation of the "historical method of philosophizing." Indeed he attempts a rational justification of this condemnation. His argument is in brief that it follows from a consideration of the very nature of the notion of time that at any given moment, an endless time, *i. e.*, an eternity, has already elapsed, and therefore, that all that can ever be or become, already is. In other words since an infinite process has produced a result that is merely finite,

³ Cf. Sully, *Pessimism*, p. 97. "Schopenhauer, as Hartmann observes, had a curious contempt for history. His conception of the order of time as essentially unreal led him to speak of the past as 'humanity's dream, long, heavy, and confused.' "

it is inconceivable that a continuation of the process should produce anything more or better than has already been produced.⁴

The argument may seem to presuppose the identification of finitude with evil; but whatever may be the logical presuppositions of the argument, this can hardly be Schopenhauer's meaning. For from his point of view, it is manifest that one finite may be better than another. Of two sums of pleasures or of pains, though each of the two is finite, in the one case the greater, and in the other case, the less, is assuredly the better.

That an infinite process may be required for the production of a finite result, and that a continuation of the process may nevertheless produce a result which, while still finite, is greater (and here it is evident that the notion of the greater must represent the notion of the better) is certainly not unthinkable; as will appear from a consideration of certain mathematical series. Take for example the series . . . $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2, 4, 8, . . ., which may be supposed to represent the entire time-process. Like the time-process, it is without either beginning or end. Any term may be said to be the result of an infinite number of terms, yet each term, though in a sense a finite product of an infinite process, is followed by a term which, though still finite, is somewhat greater.

It is evident that Schopenhauer's distaste for the historical method of viewing the world, is not the result of his argument, but rather that the reverse is the case. I have already suggested that his failure to recognize any value in activity and struggle *per se* is a consequence of an ultimate value-judgment by which he prefers the timeless and eternal to that which flows or becomes.⁵

His failure to see any possibility of the improvement of the world arises, it seems to me, from the same ultimate judgment of value.

⁴ It is true that in several passages of his later writings Schopenhauer evinces considerable interest in the genetic view of the world. But he never reconstructed his system in the light of this later insight.

⁵ Cf. Lehmann, *Schopenhauer*, especially Chap. III., "Monismus und Ethik."

To recapitulate the values so far as we have discovered them, which are recognized by Schopenhauer in his doctrine of pessimism, he, in the first place, contrary to superficial indications, shares the well-nigh universal judgment that pleasure is good and pain evil, and also that life is good when considered, if that be possible, in abstraction from its pleasures and pains. In the second place, he departs from what I presume is the opinion of the majority of mankind, in holding that unity, eternity, and, consequently, apathy are preferable to a multiplicity of individuals, all struggling for self-realization in the course of a time-process.

By renouncing pleasure, and combining the concept of life with the concepts of unity, eternity and apathy, he reaches the notion of Nirvana. Nirvana is, accordingly, for Schopenhauer, the sum of all values. Yet, Nirvana is an impossible being or state of being, because of the complete absence of meaning in the notion of a life which is not in time.

BALTIMORE, Md.

V.

WHAT A THEOLOGICAL STUDENT SHOULD KNOW ABOUT HOME MISSIONS.¹

CHARLES E. SCHAEFFER.

"Facts are the fuel with which missionary fervor is fired and fed."

I may be indulged long enough to state how I came to select this topic. A professor in one of the theological seminaries in the middle west recently requested me to communicate to him what, in my judgment, a theological student in these modern times should be expected to know about home missions. After complying with this request, and for the purpose of confirming my own views regarding this matter, I entered into correspondence with several personal friends who are occupying professorships in a number of leading theological seminaries in this country, asking them for an expression of their thoughts on this subject. Their replies coincided in a general way with my own outline, and served to deepen my conviction that the home mission task is substantially the same in every Protestant denomination, and that every student in every theological seminary in the country should diligently apply himself to the study of its outstanding elements.

The average theological student doubtless ought to know a great deal about home missions before he enters the theological seminary. His home life, his Sunday-school training, his catechetical instruction, his regular attendance upon the services of the church, his reading and general knowledge of religious literature, the college curriculum and atmosphere, especially if it is a denominational or Christian college, should

¹ Substance of an address delivered at the Annual Missionary Conference, in the Theological Seminary, Lancaster, Pa.

impart to him general, perhaps rather comprehensive, information on the subject of home missions. Some of us, however, are already so far removed from the time when we entered the theological seminary that we have actually forgotten how meager along this line was our knowledge. We knew, perchance, the different parts of a Greek verb, but we knew comparatively little of how the life of the church expresses itself and functions into different activities. Indeed, it ordinarily requires years of earnest and faithful work in the pastorate before one actually comes to grasp the full significance of this phase of the church's life. But it is not until the full measure of it lays hold upon the pastor that he is actually caught up by it. The experience forms a new epoch in his ministry. He obtains a new point of view and receives a new impetus, which subsequently characterizes and colors his entire ministry. Unless this happens in his life and experience his ministry is jeopardized at its very threshold and he is in danger of becoming narrow and provincial and shorn of power. It is, therefore, important that the minister, at as early a period as possible, should be introduced to this new experience that will determine his usefulness in the church.

At first thought it would appear as if a theological student should know everything that can be known or is worth knowing on this subject. But it might be regarded too ambitious an undertaking even for a theological seminary to attempt to teach its students all that might be known upon any given subject. A theological course is intended rather to furnish an outline, to touch the high places, to lay bare continents of thought and life, to furnish the point of view, to open the eyes of the young man that he may see, and to stimulate the desire to enter the highest realms of thought and service with the best possible intellectual and spiritual equipment. The multiplicity of the subjects to be taught and the limitation of the time render it impossible to make an exhaustive study of any subject prescribed in the curriculum. The student must, therefore, content himself with a general lay-out of the field. He

must get in touch with the sources. He must master fundamental principles. He must grasp the proper objective, and depend upon the future to work out more in detail the problems which he perceives only in perspective.

It is necessary to obtain, first, a general Biblical background in order to give proper setting to the subject. If there is no Biblical basis for home missions you can afford to pass it by, but if it is found there and if you discover that it forms a dominant note in the Bible you will want to make it a dominant note in your message, and your interpretation of the Bible itself will in large measure be determined by this fact. The Bible, to be sure, is a missionary book, but this fact must be learned not after any dogmatic fashion. You must ascertain it for yourself. The missionary significance of the Bible does not appear so much in isolated missionary texts, as in the very texture of the Bible itself. The missionary idea obtrudes itself constantly throughout God's Word. The prophets were home missionaries; they spoke to and in behalf of their nations. The import of their message was that of social and ethical righteousness. Isaiah, Amos, Hosea and Jeremiah—all had the home mission passion. The New Testament has a distinct home mission message. Jesus declared that He was sent only to the lost sheep of the house of Israel. The twelve whom Jesus sent out were first sent to their own countrymen; they were home missionaries; they were not theologians, not ecclesiastics, not prelates, not philosophers, but messengers, witnesses, missionaries. They incarnated in themselves the missionary passion and turned the world upside down, but right-side up. Philip and Andrew first found their own brothers and brought them to Jesus. The disciples were told to begin at Jerusalem and then to go into the uttermost parts of the world, but at that time only three continents lay within the zone of their knowledge. It required a special revelation for Peter to make room for the Gentiles in his thought and program. The missionary significance of the Lord's Prayer is well known. The Gospels are missionary documents; their

name indicates their very nature and purpose. The Acts of the Apostles constitute the first volume of missionary history. The Epistles, letters written to newborn churches, are shot through and through with missionary ideas. Now, when the theological student learns to regard the Bible in its true missionary light, he will have laid a proper foundation that will serve not only to make the Bible a new volume, but also to give him the proper perspective and program for his whole ministry.

It will be necessary in the next place to get a proper historical background, a clear and concise outline of American history, covering the early occupation of this country, with special reference to its national and racial lines of cleavage. A bird's-eye view of American history is indispensable. The drama of home missions must be properly staged; the outstanding events in our national development must be grasped in their historical significance. There is a philosophy of American history which enters into a proper understanding of the religious forces that have been operative in our national life.

This study must be followed by an outline history of American Christianity. The great forces at work in planting Christianity in this new land must be known and recognized. This involves a general study of different denominations in their efforts to secure foothold in this western world. Such books as Bacon's *American Christianity*, and Clark's, *The Leavening of the Nation*, cover the field that is contemplated under this heading.

The theological student should be conversant with the biography of leading home missionaries. He should be as familiar with the thrilling experiences of men like David Brainerd, Marcus Whitman, John Peck and others, as with those of some of the outstanding missionaries to foreign lands. The pioneer missionaries of the Reformed Church, those brave and heroic men who carried our faith into the Southland and beyond the Alleghany mountains and out into the plains and

prairies of the middle west, who founded our educational institutions and laid foundations in many places for Reformed congregations, should be known and cherished by every student who wants to take rank with these men in the ministry of the Reformed Church.

After this general historical background, the theological student will want to get a proper denominational background. He will want to know the early history of the Reformed Church in this country, its rise and its spread; he will want to know the beginnings of our home mission work in its organized form, reaching back as far as 1826 when the Board of Domestic Missions was first founded. He will want to go back into our early records and in truly scientific fashion ascertain what forces were operative in that early period which evolved into an organized effort along home missionary lines. He will want to know the early struggles and handicaps, and he will find much in that early period that will help him to explain some of the present-day conditions in the Reformed Church. With the organization of the General Synod in 1863, he will discover the emergence of a new order of things. It will be important for him to grasp the historical significance of that outstanding epoch in our church's life. There were national forces operative which came to expression in the church, and he will observe how slow the church was to adapt herself to the changed principles of government; he will be interested to find how there was a shifting from one form of church government to another in the management of our home mission work, now under the care of the General Synod's Board and then again under the District Synods' Boards, until in 1890 the work of home missions was unified under General Synod's Board. All this will be of little interest unless he comes to appreciate that the statesmen in the nation were grappling with the same problems so far as the national government was concerned as the leaders of the church were in adjusting the principles of church government.

The study of the subject of home missions must also be ap-

proached *regionally*. "Lift up your eyes and look upon the fields for they are white unto the harvest." The earnest student will acquaint himself with conditions as they obtain in different sections of this great land. There are certain geographical zones which present peculiar home mission problems. A territorial study of the problems is always interesting. Here there are neglected, there there are over-churched sections; here is overlooking, there is overlapping. The student will want to study these different regions: the Southland, the new south which is just coming to its own, the reconstructed south which is just emerging from the stress and the strain of the civil war; the west, the great, boundless west with its possibilities, its power, its potentialities; the east, the staid and stable east with its teeming multitudes, its many-sided problems. He will want to study the problem of the city, with its mighty challenge; the ever present and pressing problem of the rural church and the rural community. He will want to stake out in his mind the new frontier lines as they swing outward and backward into the old, yet ever new and changing America. This vision of the field will enable a theological student to sense his task, and its challenge may serve as a divine call for him to enter one or another of the fields that may thus come within his perspective. During the last year of his course he may want to specialize in one or another of these fields with a view of qualifying himself for the most efficient service in his ministry.

After surveying the field *regionally* it will be necessary to approach the subject *racially*, or ethnologically. What a large and inviting field of study this is! This opens the whole subject of immigration and of Americanization; first, the older immigration, the immigration from the countries in northern Europe, and particularly as this has reference, so far as the Reformed Church is concerned, to the German people who have settled in this country. It will be necessary to make a study of the German immigrant in America and in southern Canada. Four out of the nine synods of the Reformed Church

are prevailingly German. The largest percentage of foreign-born or children of foreign-born parents in America are of German extraction. The student will thus familiarize himself with the present status of the so-called German portion of the Reformed Church. He will study their conditions, acquaint himself with the peculiar problems which are theirs and the special mission which the Reformed Church has to those people of Teutonic blood.

He will then address himself to the study of the newer European immigration, the tide that flows to this country from the countries of southern Europe. He will want to know concerning our work among the Hungarians and Bohemians and Italians in America. He will be interested to learn what religious work is done in behalf of these people not only by the Reformed Church but also by other Christian bodies. He will discover that the Reformed Church was a pioneer among Protestant bodies to do missionary work among the Hungarians or Magyars in this country. He will realize how it came to pass that the Reformed Church is called upon to work among certain specific foreign nationalities rather than among some others who are in our midst in even larger numbers.

The theological student will also want to study the Oriental immigration, the yellow tide that flows in over the Pacific ocean, with particular reference to the Japanese and the Chinese. He will come to appreciate how it is that we have a special mission to perform in behalf of the Japanese who are in this country, and how we are endeavoring to meet the situation with a splendid equipment in San Francisco, California.

A study of racial groups will extend its reach so as to include the negro, the blackman of the south, who has multiplied to twelve millions, of whom only three millions are in the church.

The study of race assimilation, of Americanization, the elimination of the hyphen, is engaging the attention of the leading minds of the country, and the problem as it relates itself to the church is of more than passing interest.

After this historical, biographical, regional and racial study of home missions, the theological student will want to approach the problem from the moral, ethical, or more specifically *religious* point of view. There is today a new emphasis upon home missions. The subject is approached from a new angle. There is a *New Home Missions*. Formerly home mission work meant the administration of the benevolent money of the church, or the subsidizing of mission congregations in different parts of the country. The policy and program of home missions have been gradually enlarged in these later years. This has been brought about through a new and enlarged conception of religion itself. Religion is not a static but a dynamic factor in life. It is not a logical but a biological fact. We are thinking of religion in terms of life, and in consequence we have set a new appraisement upon the church. The church is the area or zone in which religion comes to its maturest and fullest expression. Multitudes of men and women are still outside of the church; two out of every three in this country are outside of covenant relationship with Jesus Christ. Home missions, therefore, emphasizes in its program an evangelism which seeks to bring the power and influence of the church to bear upon these unchurched masses. It seeks to stimulate the local self-supporting church to organize itself for steady, sane evangelistic effort. It addresses itself not merely to the organization of new congregations, but also to the energizing and vitalizing of existing congregations, with a view of bringing them to the highest possible degree of efficiency. Likewise it addresses itself to the work of social service, which has for its program the christianizing of the social and industrial order; the uplift of the material forces and factors in our modern civilization. Its program contemplates community reconstruction, with special reference to the Kingdom of God. This is a marvelously comprehensive schedule and no student of modern conditions of church life and activity can remain ignorant of, or indifferent to, this new call to the old church.

The theological student will further want to study the prob-

lem *financially*. He will seek to familiarize himself with the material aspects of the work. He should know where the missions are located, what their financial ability and their prospects of development are. He should know the budget of the Board for the financing of this work. This he will obtain from the triennial reports of the Board to the General Synod. He should know how the Board comes into possession of its money, the channels through which our benevolent monies pass, what the apportionment of the General Synod for this work is; the method which obtains in getting this before the individual congregations. He should make a study of the principle and application of Christian stewardship so as to enable him to understand the spiritual significance of giving unto the Lord, and supporting the benevolent interests of his church.

A study of the financial aspect of the subject will introduce him to our Church-building Funds, whereby the Board assists in providing suitable equipment in the form of buildings for its missions. There are now over five hundred of these Funds, representing a cash value of more than \$300,000. A clear knowledge of this plan, starting as far back as 1886, will qualify the coming pastor to lay the matter in a convincing fashion upon the conscience of men and women possessed of means, to whom he may minister in spiritual things.

In following carefully and conscientiously this course of studies through the historical, biographical, regional, racial, religious, and financial aspects of the work, the student will obtain what may be called *the far reach of home mission work*. He will get a new horizon of home missions; its boundaries will expand beyond racial, national or geographical lines; they will be broader than his own denomination. The task of christianizing America will bear in upon the student with a new and tremendous significance. He will view the subject in its largest possible relations. He will give it a world setting. Home missions contemplates a christianized America christianizing the world. America's impact upon the nations

of the world constitutes the mightiest challenge to make this country thoroughly Christian.

The student in conscientiously pursuing this study will find a quickening influence possessing him during his whole theological course. There will early move into his consciousness the proper objective of a life devoted to the work of the ministry. It will put new iron into his blood, fresh enthusiasm into his soul; it will fill him with a passion to preach and will furnish him with a fund of information and illustration upon which he may continually draw. It will likewise put into his mouth a modern vocabulary enabling him to drive home his message with telling effect. If the theological student will saturate his mind and heart with a thoroughgoing study of the missionary enterprise, there will sweep over his soul a constraining desire to enter the mission field, to go where the fight is fiercest, to endure hardship as a true soldier of Christ, to help to carve out a new empire for Christ in this new land of the west, and to make the largest possible contribution towards the bringing in of the Kingdom of God upon the earth.

The following bibliography for a somewhat comprehensive study of Home Missions is suggested:

American Christianity, Bacon.

The Leavening of the Nation, Clark.

The Mission of our Nation, Love.

Missions Striking Home, McAfee.

World Missions From the Home Base, McAfee.

Christianizing the Social Order, Rauschenbusch.

Social Salvation, Ward.

Mission Study Text-Books issued from year to year as follows:

Our Country, Strong.

The Challenge of the City, Strong.

Aliens or Americans, Gross.

Immigrant Forces, Shriver.

The New Home Missions, Douglass.

The Churches at Work, White.

Books and reports pertaining to our own denominational life, as follows:

A History of the Reformed Church, by different authors.

Triennial Report of the Board of Home Missions.

The Outlook of Missions.

The Survey of the Reformed Church.

150 Years of Home Missions, Whitmer.

Our Home Mission Work, Schaeffer.

PHILADELPHIA, PA.

VI.

MISSIONS ESSENTIAL TO THE LIFE OF THE CHURCH.

ALLEN R. BARTHOLOMEW.

Our Lord sums up the true meaning of missions in His commission to the Apostles: "As the Father hath sent me, even so send I you." Missions are of divine creation, and under the control of the Spirit of God. They are the normal expression of the life of Jesus in the soul. Life never begins to be serious in the largest sense, until we feel that we have a mission in the world. No life is complete until it is missionary in its character. No soul is ripe for heaven that does not bear this fruit. Preaching the Gospel of the Kingdom in all the world is the answer of the true believer to the command of Christ. It is the response to a divine "ought" which transcends the region of bare command, and which would make world-wide missions a privilege, even in the absence of duty. The very soul of the Christian religion is missionary, progressive, world-embracing.

It must be evident that in speaking of the work of missions, we are laying hold of the eternal verities of life. We are face to face with the *supreme* business of the Church of the living God. Every other phase of Christian activity fades in the presence of the great work of missions. What a dignity Jesus gave to this important work when He said: "The field is the world!" Great as is the magnitude of the task, even to the faith of the Church, to those who view it in the light of the divine resources, it does seem possible of realization. As co-workers with God, we are not responsible for success, but for obedience.

Let me fix your attention *first*, on the last word of the topic—the *Church*? What is the Church? On what basis does the Church rest? The Church certainly, at its best, represents her Lord and Master. It is the embodiment of true religion and vital godliness. The Church of Jesus Christ rests on *human* need. And wherever this need exists, the Church must go and supply it. It is the Church of the living God, because it ministers to the supreme spiritual necessities of the human race. In this human need and in the care of souls the Church finds a reason for its existence in the world. Only as it lifts the soul heavenward, does it justify its right to be, and glorify both God and man.

The Church that has no missions has no vital union with Christ, nor actual communion with humanity. It has no Gospel for the world. From the center of the Church's life, the work of missions flows—from the holy love of God as it glows in the Cross of Jesus. “The Gospel of forgiveness is now the Church's central word, and it is the mainspring of its aggressive work.” The Church that preaches not this Gospel ceases to be the Church of Christ. The foundation of the Church is the *confession* of Peter: “Thou art the Christ, the Son of the living God.” Upon it the Church was built. Witnessing for Christ is the work of the Church. There is no other program. The Church is the great apostle of Christianity. The Gospel is the test of apostleship. Through the Church the world is to be won for Christ. “There is no future for the race, but in the Kingdom of God, and there is no Kingdom of God possible but in Jesus Christ.” The Gospel can only be heard, at home and at the ends of the earth, if the Church is obedient to its great commission. The influence of Jesus can have no real value to the human race, unless there is a Church to embody it, and make it effective. His urgent charge that His friends “disciple all nations” is still the missionary nerve that sends the Gospel over the whole earth.

That the very existence of the Church rests upon the universality of missions—upon the preaching of the whole Gospel to

the *whole* world—needs no other proof than the mere statement. It is a fact with proofs so abundant as to make the earnest heart sick to think of them. Why is the Church weak, and narrow, and sectarian? Because it has so often settled down in a certain region, become self-sufficient, and unmindful of the needs of humanity. For to limit the sphere of the Church is to deprive it of its very life. It is from this that missions save the Church. They force the Church to realize that the Gospel is for man, and man for the Gospel and that the Church has the world for its parish. How this view glorifies the Church of the living God! As the whole Church will come to understand its divine origin and human task, and read into it the lives and labors of all the missionaries, it will be a long step forward in the path of organic Church union. The true Church of Christ is a missionary Church. Through the work of missions the Church has kept up the *true* Apostolic succession. And it is this spreading of missions from one land to another and from one people to another, that has kept the Church alive.

Every great epoch in the history of the Christian Church marks a *revival in the work of missions*. Missions are the panacea for all the ills of the Church. Save for the missionary heroes of the Church in all ages and in all lands, there might be only relies left of the Church in our day. Thank God, whenever the Church became indifferent, lukewarm, cold, the Lord always raised up a man, or a group of men, who would revive the Church and give it a new start in life. In the realm of missions, the crowning glory of the Church of the nineteenth century was the fact that it did inscribe on its banner the command of our Lord to "disciple all nations" and that it did emphasize its pure aims and holy aspirations.

Is the Church the fruit of missions, or are missions the product of the Church? I will not answer the question. However, my own impression is that the work of missions is not due so much to the zeal of the whole Church, as to a direct overshadowing of the Spirit of God of certain men and women

in the Church who went forth, often at their own charges, at least at their own urgent request, to preach the Gospel to the non-Christian people. The Church may make saints, but it is always the apostles—the missionaries—that make the Church. Have you ever thought of the benefits that have come to the Church for the blessings she is bestowing upon the heathen world? The people in distant lands have been to the Church itself life from the dead. The Church has more faith in the Gospel because of its power on human hearts in Africa, India, China and Japan. The Word of God becomes incarnate anew. While the missionary is leading souls to Christ across the seas, he is bringing the Church at home nearer to the heart of God. The missionary is not a toy to play with, but a tool to work with. He is the long arm of the Church by which it reaches out and embraces the whole world. The man who regards missions as a fad has yet to learn the soul of the Gospel of Jesus Christ and the secret of the life of the Church.

Missions are not a luxury, but a necessity to the life of the Church. They are the real essence of its work, not a part, but the whole work of the Church. A Church may be neutral to some things, but no Church can be neutral to missions. The Church on earth is not a cloud of witnesses, but a witness to the crowds of the saving power of the Gospel. This truth is borne in upon the mind more impressively when we remember that the Church owes itself to Christ, purchased by His own sacred life on Calvary. A heavy debt rests upon the Church that only its missionary life and activity can pay. The Church is composed of the company of the redeemed. We are not our own, but we belong to our faithful Lord and Saviour Jesus Christ. We have a treasure in the heart that the world knows not of, but needs. It is a soul-redemption which it is alike death to lose and death to withhold. As we owe our life to the grace of the Gospel, so we owe this same message of life to the world. If it is really life that we have, it is life that we must give. We can only pay the debt of love we owe, by releasing the spiritual energies that will save mankind.

Is not the Church *increasing its debt*, and, alas, losing its life, because of what it has done against Christ? Are we not by our neglect of making known the great salvation, crucifying Him afresh and putting Him to an open shame in the eyes of the world? Missions only can pay this debt. Look at the world to-day. Why is Asia still in superstition? Why is Europe a hot-bed of warfare? Why is Africa in dense ignorance of the Gospel? Why is South America void of the Christianity of North America? What influence is the Church of to-day exerting in the world? Does Church membership really mean what it did a century ago? Is the average grandson giving, in proportion, as much to missions as his grandfather gave? Should not the Church of the present be able to travel as fast across continents and seas, with the Gospel, as the man of business travels on the swift train or steamer?

Astronomers tell us that a planet must reach a certain size before its force of gravitation would be sufficient to retain an atmosphere and make life possible. There is no atmosphere or life in the moon. At least we are told so. Now if this is a scientific fact in nature, is it not equally true in the work of missions? There must be a certain bulking of forces on the mission fields before we can have an atmosphere in which souls can be born into the religious life, "as the dew of the morning." It is a psychological law that in various activities of life, twelve men working together will do more work in one hour than one man can do in twelve hours. What are the 25,000 missionaries in the non-Christian world to-day among the *one thousand millions* of Christless people?

Even in the face of this fact, I believe that the Christian forces in the Church, with all the powerful divine resources pledged to the Church, are sufficient to conquer the world for Christ. George Fox, the Quaker, used to say, "Every Friend ought to light up the community for ten miles around him." Every Christian should have sufficient dynamic power so as to be able to light up a few of the dark places in the world. And he can do it, if he has the grace to will to do it.

The impression is widespread that *only a few select Chris-*

tians in the Church are to be the witnesses for Christ in all lands, and that the average Church member need not burden his heart with this duty. To make Christ known, should be the commanding purpose in the life of every Christian. The great command of our Lord spells the duty not only of the leaders, but also of the whole Church. The Church is the body of Christ and every regenerate man is a member of it, so that what affects one member affects all. The work of the Church is under the control of the Lord, and when He says, "Go ye into all the world, and preach the Gospel to every creature," every member must move forward.

The life of each Christian needs to go out in service to those for whom Christ died. Napoleon once said: "It is a maxim in the military art that the army which remains in its entrenchments is beaten." The non-missionary member sins against his own best interests and is inviting spiritual death. A stay-at-home Christianity is not real Christianity at all. The guarantee of Christ's abiding presence in any heart is conditional upon implicit obedience to His will. The command to "Go into all the world and preach the Gospel to every creature" has for its preface, "All power is given unto Me," and for its promise, "Lo, I am with you alway." The pages of history are strewn with the wrecks of churches, who were disobedient to the "marching orders" of their Lord. Mohammedanism is a standing rebuke to the decay of the missionary spirit of the Church in the dark ages and to the apathy of Christians in the noonday splendor of the twentieth century. God has made no provision in His plan of human redemption, and Jesus has left no promise in His teachings, whereby a Church or a Christian can be strong and healthy and prosperous if either ignores or neglects the work of Missions.

Missions are not a *voluntary* service. They are compulsory, even by a law of self-preservation. "In noting the missionary character of the Church," says Dr. Horton, "we must be careful to remember that it is essentially bound up with the ethical evangel. The Church loses its intrinsic character if it ceases to be missionary." A Church which is not missionary will soon

cease to be a Church. It has lost, if it ever had Him, the Holy Spirit. It has lost, if it ever saw it, the Cross as a living power. "A Church cold to missions is dead to the Cross." It may have religion, but not Christianity. It may have pity, refinement, friendliness, but not the power of the Gospel. With the living Church, missions are a part of its instinct of self-preservation, to put it on the lowest basis.

Unless the fruit-grower keeps up the art of grafting trees in his orchard, he will not be able very long to supply even his own table with fruit. Missions are the grafting of Christianity on the stock of the heathen tree. It is by the giving of the Gospel to the heathen world, that the Gospel itself abides as a living power in our own hearts and nation.

Do you know that we are *heathen* Christians? We owe our Christianity to members of the Church in Europe who had caught the vision of Paul, Boniface, Augustine, Columbanus and men of like passion for the spread of the Gospel. The Church in America is the outgrowth of the Church in Europe. It was a spirit from abroad that gave us missionaries, that gave us the Gospel. Shall we who follow in the train of these godly men, not pass on this good news to those who cannot believe until they hear, and who cannot hear without a preacher?

God has made man's possibilities to be the Church's opportunity, and man's need the Church's duty—nay its safety. We see not yet all things subdued, but we see Jesus. What God has done for us, He can do for all mankind. This is the abiding ground of Christian Missions. This is our confidence in every hour of trial. Let us pray at such times as these, and pray with believing hearts, for the pastors and people of our churches in the homeland, that they may be made worthy to proclaim the Gospel unto the ends of the earth. Let us pray that God may give us that faith which worketh by love and that hope which maketh not ashamed.

Missions are the sum total of what Jesus *was*, and *did*, and *taught*! His life, His love, His light are the driving energies in the spread of His Kingdom in the world. Since the missionary passion was the very essence of the character of Christ,

it must be evident that missions are the very breath of life to the Church of Christ. Let me repeat with emphasis, a former saying: *The Church of Christ exists for no other purpose in the world than to preach the Gospel to every creature.* And I draw no line between the people at home and those abroad. Everybody needs the Saviour. No Christian can say, truthfully, that his duty is to give the Gospel to his neighbor at home and not to the man in Africa, for the Master has taught that every man is *my neighbor* who needs me, and whom I can help.

Has not the Church been too narrow in its thinking and praying and working, by helping only its own community, nation, race? Did not Jesus Christ give Himself a ransom for the *whole* world? Should not the greatness of the need of the heathen be the measure of their claim upon the compassion of Christians in the homeland?

That there is need of breadth of vision in these latter days is a truth driven home to every thinking mind that knows of the world's great needs. The true horizon of the earth is bigger than that which the naked eye can take in by the sweep of its vision. It is the breadth of vision that Jesus had of a world in need. And this horizon is only visible to the eye of faith and the heart of love. The time has come when the servants of God, who enjoy the manifold grace of God, must take a broad outlook. They must take into their minds and carry upon their hearts the great interests which are ever upon the heart of Jesus. That means that the Christian must be world-embracing in his interests. Thus alone can the individual make any growth, or the congregation, or the denomination. It was often the custom of Christ to take His disciples to the mountain top. This meant infinitely more than physical elevation. He meant thereby to give them a broad outlook—a horizon. It was from the mountain top that He gave His followers the great command to "Go into all the world." In those "marching orders" all the followers of Christ are to see a world-vision, the broadest possible horizon. Only as we keep this world-wide vision before our eyes can we hope to escape the tragedy of a little, narrow, self-centered life. Oh, the pity of

the lives that lack this breadth of a world-vision! And, oh, the sadness that through it all the progress of our Lord's Kingdom suffers.

The ravages of the European war are having such a heart-rending effect upon the peace-loving people in all lands that the very mention of any war-terms fills the heart with horror. Some persons are so terror-stricken that they do not care to sing the martial hymns: "The Son of God Goes Forth to War," "Onward, Christian Soldiers," or "Fight the Good Fight with All Thy Might." These soul-inspiring hymns were not written with the idea of fostering a war-like spirit in our hearts, but to impress Christians with the thought that a spiritual war is on in this sinful world, and that it behooves all Christian warriors to buckle on the whole armor of God. Let not the roar of cannon and the clash of arms so overawe us that we fail to fight manfully the good fight of faith. There are hosts of enemies unseen to the natural eye, that encamp on the hills of the ages, and these are the foes that we must overcome not with carnal, but with spiritual weapons. If ever there was a time in the history of humanity when the call to the colors rang over hill and dale, it is in these latter days. I fear too many of God's armor bearers are falling behind in the march to victory. The cross is in the field! It is the duty of all Christian soldiers to keep near the Cross, and to follow where it leads.

"This day, the noise of battle,
The next, the victor's song."

PHILADELPHIA, PA.

VII.

THE CAUSE OF THE SOCIAL UNREST OF OUR DAY.

A. V. HIESTER.

In a recent work on the philosophy of history the prediction is ventured that as the fifteenth century had for its task the renaissance of art, and the sixteenth the reformation of religion, and the seventeenth the development of science, and the eighteenth the advancement of democracy, so the task of the twentieth century will be the reformation and reconstruction of the social world.

It is quite possible that this sweeping generalization may be too narrow an interpretation of the life, the thought, the achievements, the aspirations, of the last five centuries. There is reason, too, to question its prophetic reference to the twentieth century, whose infinitely complex and varied life can scarcely be comprehended within the narrow limits of so simple a formula. Indeed, the life of any age, or of any race or nation, is far too complex for such treatment; and it is altogether probable that while the twentieth century will be found to have sounded a strong major note, when its course shall have been run, it will include in its composition as minor tones the essential qualities and distinctive achievements of its predecessors, to which it will impart new form and color and purpose and meaning. Art, if not so creative as in the fifteenth century, will concern itself more with the problems of the common life. Religion, if not so authoritative as in the sixteenth century, will preach a larger and richer gospel, the gospel that would save the body as well as the soul and redeem society as well as the individual. Science, if not no meteoric as in the seventeenth century, will be more zealous to minister to the happy-

ness of the race. Democracy, if not so blindly trusted as in the eighteenth and nineteenth centuries as the solvent of all human ills, will prove a fitter instrument for individual and social betterment.

If this be a true forecast of the life and spirit of the twentieth century, then the ideals of the other centuries—esthetic, religious, scientific, and political—will find themselves reproduced and enriched in the new ideal of a better social world. It is this social ideal, which distinguishes our own from all previous ages, and because of which it has come to be called the age of the social question.

To be sure, other ages have had their social questions. But the social question of our own day differs from the social questions of all previous ages in at least three important respects.

There is abroad to-day as never before a deep and widespread consciousness of social needs and conditions. Other ages have had their social problems, but they did not recognize them. The present age has its problem and is conscious of it. In no previous age has there been such a high degree of social consciousness. Never before has this consciousness stirred so many people. The social problem is not to-day symptomatic of the thought and purpose of any particular class. It is stirring the masses. The masses know more, more of themselves and more of the world about them. They are looking out over the world with a new understanding of its realities and a new sense of their own importance.

A second characteristic of the social question of to-day is its radical quality. Instead of accepting the existing social order as a matter of course, and seeking only to mitigate its harsher effects, as the social and industrial reforms of the past have done, men and women are halting it into court and questioning its right to be. Nothing is taken for granted. Every social institution and arrangement is required to justify itself to the reason. Instead of striving to mitigate the harsh conditions of the laborer, men are asking everywhere why the effects of modern industry are so hard and debasing. Instead of inquiring how labor and capital can best be reconciled, they are

demanding to know why there are laborers and capitalists. Instead of discussing the social obligations of the rich to the poor, they are asking why there are rich and poor. Instead of inquiring what methods of charity are wise, they are asking why charity is necessary.

The third distinctive quality of the social question of our day is its ethical passion. It springs from a sense of wrong, as the social and industrial agitations of the past did not. It employs the language and weapons of a moral crusade. It appeals to the conscience. It demands, not charity or pity, but justice and liberty and brotherhood and a human way of living. It insists that social arrangements must submit themselves to a moral test. It is just because of this moral quality that the social question is most insistent, paradoxical as it may seem, in the most enlightened and prosperous countries. But there is no paradox in this. For the social question is rooted, not in ignorance, degradation, or social decadence, but in education, in intellectual freedom, in social vitality, in economic progress, in the moral sentiments of sympathy and brotherhood. It is this moral quality, again, which gives to the social question its commanding interest for generous minds. That so many men and women, representing all classes and conditions, are giving time and money and thought and effort to the task of social betterment is evidence of the fact that the social problem is not the problem of a particular class, but a human problem, in which and through which the moral life of the time finds expression.

What then is this social question of our age which is inspired by so intense an ethical passion, which is so radical in character, and the consciousness of which is so keen and widespread? Despite its multiform manifestations the social problem is in its origin and essence simple, for it springs from the consciousness of a contradiction between the economic conditions of our age and its spiritual ideals of liberty and equality which are being realized in political life.

There are two conceivable ways of solving the problem. Either the democratic principles of liberty and equality must

be abandoned, or industry must be democratized. But the ideals of democracy were never so deeply rooted in human thought and aspiration as they are to-day. Indeed, democracy has advanced too far to command for the first alternative any serious consideration. There remains, then, the democratization of industry as the only possible solution of the social problem.

Both factors of the problem—its economic conditions and its democratic ideals—are of recent origin. Political democracy is less than a century old. The beginnings of the existing industrial order are even more recent. Hence the social problem of our age could not have presented itself to any previous age. And as its advent could not have been quickened so its coming could not have been delayed. It had to come when it did come, simply because it was the product of world-making forces, the logical outcome of the great revolutions of the last five centuries which have transformed the face of western civilization and created the modern world.

The first of these revolutions was the Renaissance of the fifteenth century, which emancipated the human intellect from medieval forms of thought and feeling. The Reformation of the sixteenth century, because it established the principle that religion consists in a direct personal relation between God and the individual, gave to the world religious liberty. The French Revolution of the eighteenth century, by its overthrow of feudal privilege and the divine right of kings, gave birth to modern political democracy. Here then are three great revolutions, each touching human existence on a different side, and each representing a particular phase of the emancipation from the absolutism of medieval society.

There are two distinct and apparently antagonistic principles in human nature, the universal and the particular, or the social and the individual. In the ancient and medieval worlds the one principle was believed to be realizable only through the destruction of the other. It had to be either despotism or anarchism. There was no middle ground, no way of compromising or balancing the two principles. The discovery of such

a balance is one of the momentous achievements of the modern world.

Unfortunately the breaking of the shackles of scholastic, ecclesiastical, and political absolutism carried the pendulum too far to the other side; and everywhere there was developed an excessive individualism. The excessive individualism of the Renaissance became moral license. The excessive individualism of the Reformation became sectarianism. The excessive individualism of the French Revolution became anarchism.

But unrestrained individualism, whether applied to learning, religion, or government, has failed no less signally as a working principle of human existence than the principle of absolutism. Its failures are now clearly recognized, and once more the pendulum is swinging the other way. In the world of thought and feeling, learning and conduct are being socialized. In religion, there is abroad a new spirit of unity and fraternity. In politics, the policeman theory that governments are instituted for no other end than the protection of life and property has been universally abandoned. Despite the rare zeal and ability with which it has been championed at various times, it has to-day only an academic interest; and whatever elements of practicability it may have had in the past, it has none now. The ever-growing complexity of modern social conditions has made it an impossible policy.

With this reaction from extreme individualism, as a principle of political action, government is no longer regarded as it once was, as a necessary evil to be confined within the narrowest possible limits. The consequence of this new view of government has been a vast mass of legislation, which has for its primary object, not the merely negative task of protecting the individual in the enjoyment of his life, liberty, and property, but the more positive one of securing to the largest number of individuals the greatest happiness and the highest development.

The fourth great revolution which has helped to create the modern world was the Industrial Revolution. Before the

middle of the eighteenth century, industry was carried on in the household, on a small scale, by hand labor, for a narrow market. The workers usually owned their tools and frequently the raw materials and the finished product. Masters and journeymen were organized into guilds. Each craft had its local guilds which regulated styles, prices, wages, and conditions of labor, in the most minute fashion. There was little or no division of labor, and practically the only form of power employed was human brawn and muscle.

All this was changed by a series of inventions which began soon after the middle of the eighteenth century. The invention of the steam engine by Watt in 1769, the invention of the spinning "jenny" by Hargreaves in 1764, and its improvement by Arkwright and Crompton from 1764 to 1785, and the invention of the power loom by Cartwright in 1785, revolutionized the textile industries. Other industries were similarly transformed one after the other. Of the workers only the few had the foresight, enterprise, and resources to secure the new machinery. Those who did so obtained at once an immense advantage over the many who persisted in the old ways; and this initial advantage grew constantly greater. For it did not take the new captains of industry long to see that to realize from these inventions their maximum efficiency and economy required large-scale production. The inevitable consequence was the modern factory system with its centralized control, its minute division of labor, its extreme interdependence, its urban congestion, its masses of workers who own neither the tools nor the raw materials nor the finished product, and who have little hope of ever rising to the position of employer.

A similar transformation of the means of transportation and exchange, through the construction of canals and railroads and the application of steam to ocean traffic, rapidly widened the markets; and this made possible a still greater concentration of industry. Social relations were transformed, too; and in place of the equality, loyalty, and friendly interest, which had formerly obtained between employer and employed, there succeeded a broad, deep, social gulf.

Because it was no longer fitted to the new conditions created by the Industrial Revolution the guild system speedily collapsed. A period of excessive individualism followed, just as it had done in the case of the Renaissance, the Reformation, and the French Revolution, and with no better results.

There is perhaps no better instance of the evils of excessive individualism in the world of industry and commerce than that afforded by the history of American railroads. The amalgamation of many small, independent, non-competing roads into a few great trunk lines inaugurated shortly after 1870 an era of ruinous competition, which bankrupted or threatened to bankrupt the entire railroad business. This process of amalgamation was accompanied by stock watering, gambling, thievery, and other forms of crooked financing, which placed upon practically all the important roads of the country a staggering burden of interest charges. In a single year, 1873, as the direct result of this dishonest financing and ruinous competition, nearly half of the railway mileage of the country was in the hands of court receivers; and between 1876 and 1879 an average of more than a hundred roads a year were sold under the hammer.

Such intense and unrestrained competition could have but one result. By means of pools, traffic agreements, and combinations of various sorts, the railroads endeavored to protect themselves against their own weapons. This they have succeeded in doing to such an extent that at the present time the six largest railway systems control two-fifths of the entire mileage of the country.

For more than half a century this process of centralization has been going on, not only among the railroads, but all over the industrial field, with ever increasing momentum; and now in very recent years there has been superadded to the principle of centralization that of combination. A sharp distinction is to be made between the two. Centralization means control of a single industry by a small group of capitalists. When such a group controls a number of industries more or less closely allied there is industrial combination. An excellent instance of in-

dustrial combination is afforded by the United States Steel Company, which, with its gigantic capital of one and a half billions of dollars, combines, under one board of directors, iron and steel mills, bridge works, tin-plate manufactories, coal and iron mines, coking furnaces, railway and steamship lines, docks and limestone quarries, a total of more than two hundred manufacturing and transporting companies.

But the Industrial Revolution gave to the modern world something more than a new industrial system. It brought with it also a new mode of economic thought. According to this new doctrine the maximum of common good is to be found, not in the system of minute regulation as formerly, but in the strife of multitudinous private interests. Its main thesis is that man is governed by self-interest alone, but that each one in seeking his own interest will inevitably, if only unconsciously, promote the interest of society. From this it follows that governments must let industry alone so that things may work themselves out in accordance with natural laws. But like the crude individualism, which sprang with it out of the Industrial Revolution, this *laissez-faire* principle has broken down. Its woeful inability to meet modern industrial conditions has been recognized everywhere, just as the inability of unrestrained individualism was earlier recognized in the political world. All governments to-day, whether democratic or autocratic, are agreed in believing that the industrial forces of the modern world cannot be left to themselves. They differ only as to the amount of governmental interference and regulation.

There is a remarkably close parallelism between political and industrial evolution; and it is only in the light of this parallelism that the social discontent of our day can be rightly understood.

From the fall of the Roman Empire the nations have passed from feudalism to absolute centralized government, then to the use of constitutional forms and the admission of the middle classes to a share in the government, and finally to modern democracy with its enfranchisement of the masses. But just as the invention of gunpowder overthrew political feudalism, so

the steam engine proved fatal to the industrial feudalism which prevailed before the Industrial Revolution.

Again, just as political feudalism gave way, after an era of confusion and conflict, to centralized autocracy, so in the industrial world the invention of the steam engine was followed by multitudes of small competing businesses which were in turn gradually superseded by larger and larger enterprises, until centralized control became the dominant characteristic of the industrial world.

Again, just as the political despots of the medieval and early modern periods regarded their peoples as drawers of water and hewers of wood to be worked for their own benefit, so the new captains of industry claimed the right to conduct their vast enterprises at their pleasure, and for their own profit, and without regard to the interests of laborer or consumer.

And again, just as the kings of the fifteenth, sixteenth, and seventeenth centuries were able to create their highly centralized governmental structures by undermining the strength of the feudal barons, so the captains of industry forced the small capitalists to the wall through merciless competition, and reared their great industrial edifices upon the ruins of many small enterprises. And by forcing large numbers of small capitalists into the ranks of the employed these captains of industry have not only multiplied the numbers of wage-earners, but they have also improved their quality.

And then, once more, just as in the political world the masses grown strong through the destruction of the nobility gradually wrested power from kings and princes, and established constitutional forms of government, and laid down the principle that government is for the benefit of the governed, so in the industrial world the principle has begun to be recognized that the possession of wealth creates social obligation, and that industry is for the benefit, not of the employer alone, but of the employee and consumer as well.

That the democratization of industry has begun, and that the industrial world is slowly emerging from its era of autocracy,

is scarcely open to question. The rapidly growing mass of social legislation in every civilized country, the many laws regulating corporations and monopolies in the interest of laborer, consumer, and investor, child-labor and pure-food laws, factory acts, and sanitary regulations, can be interpreted in no other way. More and more the public is extending its control over industry by means of legislation and judicial decisions which extend the police power of the state. But the gradual decline of the principle of industrial absolutism is manifesting itself also in other than legislative and judicial ways. Quite apart from any legislative mandate, the public, hitherto ignored both by employers and employees, is successfully asserting its claim to the chief consideration in all industrial disputes. On the other hand, labor is being consolidated as never before. It is discovering new strength to resist encroachments upon what it conceives to be its just rights. It is demanding a new integration of human interests and a larger share in the benefits of modern industrial progress. It is dreaming of a coming day when the captain of industry shall have gone the way of the autocratic monarch, and when the principle of a new social solidarity shall be applied to the world of industry with the same degree of success and completeness with which it has been applied to thought and feeling, to religion and government.

Whether this vision ever will be or ever can be realized, or whether it will prove to be a wise or desirable consummation when it is realized, does not matter now. The all-important fact is that in this as yet unrealized, and in the minds of many unrealizable, vision of industrial democracy lies the genesis, the strength, the tremendous significance of the social problem.

But how different the reality from the dream! Today as never before there has been borne in upon the masses the consciousness that they have not kept pace with the classes, and that they are not now receiving what they believe to be their just share of the benefits of modern industrial progress. And so there has come to be, beneath all this progress, beneath the marvelous achievements of science and the unparalleled accumulations of wealth so characteristic of our age, a dull, dismal

sickening, overpowering sense of social maladjustment. This is the great first cause of the social unrest of our day.

But this great first cause of social unrest manifests itself under various forms; and mixed with it are a variety of secondary causes which serve to interpret its particular manifestations or to emphasize one or the other of its several elements. The most important of these secondary causes, or, better perhaps, groups of secondary causes, will be considered now somewhat in detail; and in order that a proper evaluation of them may be arrived at it is important that they be regarded as purely objective realities. Let them be at this time, not what they are to the well-fed, the comfortable, the successful, but what they are to the baffled and defeated who harbor the discontent in their own souls. These may be mistaken in their facts. They may have erred in their conclusions. The correctives which they propose may be irrational or impossible or pitifully inadequate. But all this is of no consequence now.

Social discontent, it has just been said, may manifest itself in various ways. At one time the issue may be between labor and capital; at another, between the debtor and the creditor, or between the farmer and the railroad, or between the rich and the poor, or between the producer and the consumer, or between corporate industry and the investor, or between big business and little business.

All these forms of social conflict have been witnessed in the United States. After the close of the Civil War, to go back no farther, social discontent was first mainly agrarian in character. The class struggle was between the debtor and the creditor, or between the farmer on the one side and the banker and financier on the other; and its chief weapon was the inflation of the currency. But later, because of the accumulation of vast fortunes, often by questionable means, and because of the massing of the proletariat in the great cities, the emphasis of the class struggle was shifted; and the opposing parties were no longer the debtor and the creditor, the farmer, the banker, the railroad, but big business on the one side, and the laborer, the consumer, the investor, and the small business man, on the other.

But whatever the particular form which social discontent may take, it must not be overlooked in any attempt to appraise either its intensity or its generality that formerly the masses had no effective or convenient way of voicing their discontent; whereas to-day, with our unparalleled ease of communication, our freedom of speech and of the press, our marvellous educational progress, the agencies and avenues for the voicing of discontent have been multiplied almost without limit. To all this must be added the significant fact that the exploitation of social discontent has been found to be commercially profitable. Agitation is so common because it pays. It pays to sound the tragic, the morbid, the alarming note, because these have a dramatic quality and can be capitalized, as peace and contentment and the even tenor of life cannot. Not only do the ease with which our complaints can be uttered, and the commercial interest which the press has in giving them utterance, exaggerate the discontent of the moment, and deceive both as to its nature and extent, but they are themselves also causes of discontent.

There is today perhaps no more effective agency for the creation of a certain kind of social discontent than the socialist propaganda. In the United States, it is true, constructive socialism has as yet made little headway among the laboring classes. Not only does American democracy present a better balance between the social and the individual principles than is found elsewhere, but the individualist tradition is still strong here; and the consequence has been that native American laborers have been slow to identify themselves with a social scheme that is calculated to destroy all real individualism. The prophets of socialism in the United States are mainly Germans. Its partisans are largely immigrants from continental Europe. The great body of its literature is of foreign origin. That the American laborer has been indifferent to the claims of socialism is shown by the bitter complaints of the leaders of the movement. "If the class spirit is at last aroused among workingmen," declared a German socialist, speaking of native American workingmen, "it is owing to German immigrants

who are indefatigable in their task of organizing the still blind masses."

But while the American workingmen are indifferent to the constructive program of socialism it is scarcely to be expected that they will remain uninfluenced by socialist criticisms of the present social order. And so when the socialist agitator pictures the social ills of the day, and asserts vehemently and dogmatically that there has been no improvement, and can be none, in the condition of the masses, and that the benefits of industrial progress are more and more being monopolized by the few, and that the chances of making a decent living are constantly growing more uncertain, the inevitable effect of it all is to intensify existing discontent and create discontent where none existed before.

Besides the fulminations of socialist agitators, and the more or less ephemeral literature of the newspaper, the magazine, and the pamphlet, there are the more serious writings of the philosophers, the historians, the political economists, the publicists, the sociologists, which are presumed to be the opinions of learned and disinterested minds. Socialist agitators and discontented laborers are at no loss to reënforce their own beliefs and experiences with the opinions of such men as Ruskin, Carlyle, Tolstoi, Ibsen, Emerson, Matthew Arnold, John Stuart Mill, Pope Leo XIII, and many more of the world's intellectual and spiritual leaders. To be sure, the laborer usually reads these men in his trade journal in the form of brief extracts, and if he does occasionally go so far as to read the particular passages which influence and please him most in their context, he does not always get at their real meaning. It is enough for him to know that the world's recognized leaders and teachers are on his side.

The first group of secondary causes, then, includes all those influences which make the voicing of discontent easy and effective. But before discontent can be voiced it must be created; and the second group will, therefore, deal with those agencies which serve to create discontent through education. The supreme office of education is to develop all the powers of the individual, physical, mental, and spiritual. The effect of this

is to create new desires and wants, and to set up higher tastes and standards of judgment. The number and intensity of these new desires know no bounds, whereas the material means of satisfying them must, in the nature of the case, always remain narrowly limited. Hence education inevitably excites desires which cannot be satisfied. It follows, therefore, that to improve the material well-being of a class affords no guarantee against discontent. For social discontent is not the mark of degradation and misery and grinding poverty. If it does not indicate a high standard of living, it implies at least a rising one. It is the index, not of social decay, but of social vitality. It spells, not ignorance, but intelligence. The laborer is discontented to-day, not because his economic condition is growing worse, but because his emotional and intellectual life has been awakened and is demanding new satisfactions. He has been to school and knows more than his father and grandfather before him. He sees more; he feels more; he thinks more. And the consequence is that where education has done its work every addition to his wages quickens his desire for better things.

It is easy, of course, to exaggerate the amount of physical suffering and poverty. There is reason to believe that relatively fewer people are suffering to-day from lack of the food, shelter and clothing required to support life than was the case half a century ago. But if poverty is not more intense nor more general than formerly, measured by purely objective standards, it has lost nothing of its subjective bitterness. Poverty in a poor country and poverty in a rich country are very different things. The cheap tenement seems infinitely meaner by contrast with the luxurious homes of the rich. It is the ease and leisure of the rich that make so dark and hopeless the grinding maddening sweatshop, with its long hours of toil, its miserable pittances, its filthy surroundings, its frightful toll of human vigor and human life and human virtue and human everything. It is the ostentatious display of wealth, the rich clothing, the costly jewels, the glittering equipages, the gay life, of the rich, that magnify by contrast the poverty of the poor. It is this contrast with wealth and luxury and pomp and ease that

makes the poverty of the present day more self-conscious and infinitely more bitter than ever before; and though physical or absolute poverty may be diminishing this relative felt poverty is undoubtedly growing.

A third group of secondary causes of social discontent is to be found in certain features of present-day industry. The general tendency towards industrial concentration, first through centralization, and then through combination, has been referred to as one of the important consequences of the Industrial Revolution. The chief evidence of this industrial concentration, which is most marked in the fields of transportation, mining, and manufacturing, is the relative importance of individual and corporate ownership. Of the total number of establishments reported as engaged in manufacturing in 1904, 23.6 per cent. were under corporate management; and in 1909, 25.9 per cent. In 1904, again, those under corporate management employed 70.6 per cent. of all the wage-earners and produced 73.7 per cent. of the entire output; whereas in 1909 the corresponding percentages were 75.6 per cent. and 79.0 per cent. Of the 268,491 establishments reporting in 1909, 3061, or 1.14 per cent. of the entire number, produced 43.8 per cent. of the entire output and employed 30.5 per cent. of all the wage-earners.

These figures indicate, not only the fact of an extraordinary degree of concentration in manufacturing at the present time, but also the even more significant fact that the process of concentration is still rapidly proceeding. Because of this marked concentration of industry the laborer has been made to feel that an independent business career is no longer open to him as it once was. If proof of this were needed it would be found in the fact that from 1850 to 1910 the population of the United States increased fourfold, while the number of wage-earners increased sevenfold.

The fact that a constantly increasing number of men and women find it necessary to sell their labor to others has given to the social problem a new significance. When a man is in business for himself distribution appears to be more or less sub-

ject to natural laws over which the individual can exercise little or no control. But when the worker sells his labor to another the two parties are brought face to face with each other, and the problem of distribution assumes at once a more personal, as well as more arbitrary, character. More for the one means so much less for the other.

Besides this growing dependence of the worker, there is in modern industry an uncertainty and insecurity that presents new possibilities of discontent. Every improvement in the condition of the laborer establishes a new standard of living; and anything which threatens it excites within him instant alarm and hostility. Here is something to lose on which a great price is set; and it is the constant fear lest the standard of living be lowered and the little signs of respectability which enter into its making be lost that constitutes one of the deepest and most potent sources of discontent. That modern industry presents greater possibilities of such loss than was formerly the case is only too evident. When the laborer owned both tools and materials he could work when and as he pleased, limited only by his ability to sell the finished product. But now he no longer owns either; and the consequence is that he can work only by permission of those who own these requisites of production. To all this must be added yet the speculative character of modern industry, the incessant fluctuations between financial and industrial booms and glutted markets, the sudden and great variations in the demand for certain lines of goods, and the ever-widening use of machinery, all of which serve to render the laborer's position constantly more precarious.

Much of the uncertainty of modern industry proceeds from the use of machinery. Costly delicate machinery cannot lie idle. Hence, when business is dull, because the markets are overstocked, mills are usually operated as long as something more than the cost of the raw materials and the common labor can be realized from the finished product. The consequence is

that markets already overstocked are still more demoralized, and the process of recovery is retarded oftentimes for years.

Under a machine regime, too, the skilled workman is frequently superseded by women and children, who can be had cheaper, and whose dexterous fingers are better adapted to the manipulation of delicate machinery. This is made possible by the minute division of labor, which goes with a machine regime, and which has reduced industry to a multitude of simple processes requiring little mechanical skill and easily learned. Or if the skilled workman is not summarily dismissed, either to make way for women and children, or because there is less need for his particular skill, he may hold on, perhaps at a lower wage, to the age of forty-five or fifty, to be set aside then for a younger man. For, owing to the greater speed of machinery, as well as to its more costly and delicate nature, the demand in the higher ranges of industry is for operators with every nerve and every muscle at its best. That demand is met better by the young man of twenty than by the grey-haired spectacled workingman of fifty. Of course, not all employers turn their men adrift in this fashion. Often there is kindly effort on the part of the employer to find lighter and less exacting work for those who have passed their prime. But this is at best an inadequate remedy; and with the growth of corporate industry, and the consequent decline of the personal relation between employer and employee, it is constantly becoming more inadequate. Many superseded workmen turn to odd jobs. Not a few are supported by their children; and then there are those who sooner or later become objects of charity. Thus at every turn the laborer must face the possibility of a lower standard of living, and even a complete loss of employment, notwithstanding the fact, which he well knows, that machinery has multiplied many times the productive power of labor.

Unsuccessful efforts to remove the causes of discontent are inevitably productive of fresh discontent; and this brings us to the fourth group of the secondary causes of discontent.

There are two agencies upon which labor mainly relies for the protection of its interests, the trade-union and the ballot.

The supreme object of the trade-union is to establish some sort of partnership between capital and labor by means of collective bargaining and the joint agreement. The nature of this partnership is indicated by the following most common demands of American labor organizations: That the working day be reduced to eight hours without any reduction of wages; that none but union men be employed; that union men be employed only at a minimum or uniform union scale of wages; that the amount of work to be done in a day be determined by the union; that a committee of the union be allowed in the shop in order to regulate the conditions of work; that the foremen, although the agents of the employer, be union men whose duty it shall be to safeguard the interests of the union; that a walking delegate be admitted to the shop in order to see whether union interests are properly safeguarded by the committee; that all goods be marked "union-made"; that no materials be bought from those employing non-union men; that no dismissals be made by the proprietor without the consent of the union; that union badges be worn openly in the shop so that non-union men can be promptly detected; and that, even if wages, hours, and conditions of work are satisfactory, the right to strike in sympathy with other unions be reserved.

While organized labor has not been able thus far to impose all of this ambitious program on capital, it has demonstrated two things: first, that the trade-union or some other form of labor organization has come to stay, that, abstractly considered, labor has the same right to organize as capital, and that, as a matter of expediency, labor must maintain a strong and compact organization if it is to cope on anything like equal terms with the gigantic combinations of capital of our time; and secondly, that neither organized labor nor organized capital can hope to rule the industrial world absolutely, that neither is strong enough to overcome the other, and that some form of compromise is necessary.

The limitations of trade-unionism are better understood now than they were a decade or two ago; and labor is coming to rely more and more upon the ballot to improve industrial and social conditions and secure for itself a larger measure of material well-being and economic equality. The growing disposition of labor to see in political agitation the hope of a new era appears the more remarkable when it is remembered that a generation ago organized labor was afraid of polities.

This change from a non-political to a political attitude of mind may be explained in several ways. In the first place, the many defeats suffered by organized labor at the hands of big business have had the effect of creating fresh demands for state action. State ownership is demanded in the belief that the state will prove more pliant in recognizing the claims of labor than private corporations have been; and state regulation is demanded because only the state has the strength needed to control big business.

A second factor in the changed attitude of organized labor towards polities is the fact that labor has been taught by capital, if not by precept then by example, to look to the state for assistance in the promotion of its interests; and labor, it may be added, is proving an apt pupil. Capital has frequently used the state for its own ends. Ample evidence of this is afforded by the wholesale bartering away of special charters and franchises by the state legislatures, the successful appeals of the great manufacturing interests to Congress for higher tariff rates, industrial bounties, and similar favors, and the frequent instances of railroad corporations seeking and obtaining from the National Government land grants and special privileges. To no single interest have the state and national governments been so lavish in their favors as they have been to the railroads. Up to 1872 the National Government had granted in aid of railroads 155,000,000 acres of land, an area almost equal to that of the New England states, New York and Pennsylvania combined; while nineteen states had voted for the same purpose more than \$200,000,000. To the Union Pacific

alone the National Government granted a free right of way through the public lands, twenty sections of land, or 12,800 acres, for each mile built, and a second mortgage loan of \$50,000,000.

And then, once more, there has been for some years all over the civilized world an unmistakable trend towards paternalism, which has profoundly influenced labor in its attitude towards political action as a panacea for social ills. Gladstone is quoted as having said shortly before his death that the chief event of his time was the increasing identification of politics with social questions. That tendency has not yet shown any signs of diminution. The extent to which private interests are appealing to-day to the government, in the United States as elsewhere, is truly amazing; and we seem to be on the threshold of an era of unparalleled paternalism.

Under the influence, then, of these several factors, the failure of the trade-unions to realize their ambitious program, the various ways in which capital has sought and obtained governmental assistance; and the general trend towards a regime of paternalism, labor has come more and more to regard governmental action as a panacea for all social ills.

But in the United States, because of the federal character of its government, the problem of controlling industry is hedged about with peculiar difficulties. Much of the field of social legislation lies without the province of the national government; and when the several states attempt to deal with it, each in its own way, the results are far from satisfactory. Not only is the rivalry among the several states to attract new business, or keep what they have, fatal to any uniform or comprehensive control over commerce and industry, but the states have in many instances exclusive power to legislate for what are unquestionably national interests. In 1900 Massachusetts made 45 per cent. of all the boots and shoes produced in the United States; Illinois 50 per cent. of all the agricultural implements; Pennsylvania and Indiana 67 per cent. of all the glass; and Pennsylvania 54 per cent. of all the steel. All

these industries, by virtue of their economic importance and far-reaching connections, are national industries. Yet in every instance the national government has practically no powers of legislation. Political power, under our federal system of government, is not coterminous with economic interest, because of the simple fact that while the United States is one industrially it is many politically. That this is a serious weakness has come to be widely recognized; and to say that a nation-wide evil requires a nation-wide remedy is to utter a mere truism.

But while the National Government possesses no legislative control over the greater part of the field of industry, since all intra-state enterprise is by the terms of the Constitution reserved to state control, it does exercise over the several states a very great judicial control. And it does this under the provisions of Article I, Section 10, of the Constitution which prohibit a state from making any law impairing the obligation of contracts, and also under the provisions of Article XIV of the amendments relating to due process of law and the equal protection of the laws. The effect of these provisions when strictly interpreted is to magnify individual and corporate rights as against the legislative power of the several states. Thus while the National Government is powerless to do anything in a positive way with respect to many great national interests, it is all-powerful through its judiciary to strike down state legislation and thwart state action designed to regulate industry.

Prohibitions similar to those of the Fourteenth Amendment have been embodied in the constitutions of the several states; and state legislation must, therefore, also run the gauntlet of the state courts. But neither the state nor the national courts have always adhered to a strict interpretation of such prohibitions; and particularly in recent years they have sustained a large amount of labor legislation as a legitimate exercise of the police power. The purpose of the police power is to secure and promote the public welfare by modifying the original doctrines of liberty and freedom of contract. To do this effectively

it must change with social and economic conditions. In any community, therefore, whose highest authority is derived from a written constitution which cannot be readily amended, the police power is in the hands of the courts a safety-valve of the highest importance. While the decisions are still conflicting the evidence of a gradual modification of the philosophy underlying our judicial system is clear. But such modification has gone neither far enough, nor fast enough, to satisfy labor.

In so far, then, as the legislatures have failed to respond to the demands of labor, or if, when they have responded, their acts have been nullified by the courts, or if, when sustained by the courts, they have failed to justify the hopes of their sponsors, because unwise conceived, or badly drawn, or designed to cure ills that are rooted in individual character, the consequence has always been more discontent.

A final cause of social discontent—and it can only be mentioned—is to be found in the decline of religious faith and authority. And just because of this decline it is no longer possible, as it once was, to quiet the masses and reconcile them to their lot by the assurances of religion that the hardships and misfortunes of this life are owing to the dispensations of Providence, that they are inherent in man's earthly existence, that in either case they are to be endured with patience and fortitude, and that all the wrong and injustice of this life will be righted in the life to come. The structure of society and the laws of social growth and development are better understood than formerly by all classes. Society has come to be something that can be controlled and directed. There is no longer any mystery about its processes; and when injustice is felt it is believed to be due to causes that can be discovered and corrected. Hence it is that religion's other-world assurances have largely lost their virtue as sedatives and prophylactics for social discontent.

These, then, are some of the most potent causes of the social discontent of our day. Let it be emphasized once more that social discontent does not spell social decadence but social

vitality, that it is not the index of degradation and despair but of hope and courage. Amidst all the misery and injustice and disorder one fact stands out clear and strong, and it is this. There never has been a time when men had greater faith in free institutions than to-day. Perhaps the chief quality of the old order of things was its fatalism. Because men are by nature unequal any attempt to make them equal or only less unequal must be futile. This is the old social philosophy. The new is optimistic. It knows that man is not like the lower forms of life the passive object of natural evolution, but that through his highly developed intelligence he is able to react against the cosmic forces which play upon him, and modify their operation. This much he has learned from modern science; and consequently there is abroad to-day as never before the conviction that social conditions are subject to man's will and purpose, that they are improvable, that the last step of progress has not been taken, that the last word of hope has not been spoken. "The evolutionary theory is ingrained in men's minds. Man has developed from most humble beginnings. Through incalculable stretches of time matter has operated, patiently evolving one type after another. The nineteenth century has revealed the scheme of the universe to be the persistent development of higher types of life. To that end mankind can now co-operate with the forces behind the universe; and this principle is no less applicable to the social and spiritual worlds than to the world of nature."

This is the social creed of the masses to-day. And just because they believe in the perfectability of social conditions and institutions they are discontented with the social and industrial order that now is.

LANCASTER, PA.